

Adding fuel to the flame:

*The Hat Gyi Dam and ethnic conflict in  
Karen State, Myanmar*

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# Abstract

Demand for energy and its associated services in order to meet social and economic development, is on the rise worldwide. Yet, with electrification coverage of approximately 26%, Myanmar still has a long way to go. One of the options considered in this regard is to expand upon Myanmar's huge hydropower potential. However, whilst Myanmar's hydropower potential is enormous, the sources are located in ethnic minority and conflict areas. Until now, consultation with local population and ethnic armed groups has been minimal at best, and non-existent on average. Given this lack of consultation in the decision-making process, and the fact that a concrete ceasefire with all ethnic armed groups has yet to be signed, fighting around (potential) dam sites has been frequent, leading to human rights abuses and forced resettlement of people among other things. What is more, these dam projects so far are a result of contracts signed with foreign investors in China and Thailand, meaning that whilst Myanmar itself is in dire need of electricity, the energy gained from the dams will mostly be exported to those investor countries, hence the revenue of these contracts flow back to the central government, not the ethnic states.

Thus, this thesis looks into this problem by specifically focusing on the Salween River, and there in particular the Hat Gyi dam in Karen State. The thesis attempts to extrapolate to what extent such dam construction may lead to further escalation of conflict. Throughout the thesis, the themes of ethnicity, participation, and the importance of history will be explored and utilised in order to provide a greater understanding of the subject. The key messages derived from the fieldwork conducted is the stark economic and political push in favour of dams emanating from state governments versus the villagers' strong connection to nature and the Salween River and lack of say in how the River will be utilised, further marginalising the ethnic minority groups and contributing to conflict.

A political ecology framework will be employed, specifically looking at the power relationships between actors involved as well as the degree of local participation in the dam project and the effects of such participation (or lack thereof) on and the on-going conflict. The analysis is based on data collected during fieldwork in Chiang Mai, Yangon and the area around Hpa'an (Karen State) in November-December 2014.

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# Abbreviations and terms

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BCP	Burma Communist Party
BGF	Border Guard Forces
BRN	Burma Rivers Network
CBO	Community-based Organisation
DKBA	Democratic Karen Buddhist Army
EGAT	Electricity Generating Authority of Thailand
EIA	Environmental Impact Assessment
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GW	Giga Watt
GWh	Giga Watt per hour
Hluttaw	Myanmar's Parliament
ICOLD	International Commission on Large Dams
IDPs	Internally Displaced Persons
KIA	Kachin Independence Army
KESAN	Karen Environmental and Social Action Network
KNA	Karen National Association
KNDO	Karen National Defence Organisation

KNLA	Karen National Liberation Army
KNU	Karen National Union
KDRG	Karenni Development Research Group
KRW	Karen River Watch
KWh	Kilo-Watt per hour
MW	Mega Watt
MOEP	Ministry of Electric Power
NGO	Non-Governmental Organization
REAM	Renewable Energy Association Myanmar
SLORC	State Law and Order Restoration Council
SPDC	State Peace and Development Council
Tatmadaw	Burmese Armed Forces
UNEP	United Nations Environment Programme
UNDP	United Nations Development Programme



Map 1 - Map of Myanmar. Source:(UN 2012)

# 1 Introduction

Myanmar has always been a country of special interest to me. How could a country of such history and beauty remain under authoritarian rule for so long? Why did the sanctions placed against Myanmar by a number of nations not seem to affect its rulers? And, what triggered the democratization process that has slowly begun to take place in recent years, baffling many political analysts? It seemed a magical and mystical place to me, where time had stood still for so many decades and only now awaking from its slumber, its people eager to talk to the ever growing number of tourists visiting their country, ever smiling and welcoming. One of the things that particularly struck me when walking through the busy streets of Yangon, was that one is bombarded by telecommunication ads at every turn: the familiar blue hue of Telenor popping up at everywhere, in a beautiful written language I will never be able to read myself, whilst shops sell cell phones and electronics on virtually every corner. High end products being advertised at the shopping centre close to my guesthouse, most prominently of which, huge Land Rovers. The younger generation blending their traditional clothing with dyed hair, emulating Korean K-Pop singers. The country is trying to come to terms with the new influx of international products, mixing it with their own traditions. Yet one thing driving all these new images and businesses is electricity, a scarce commodity in Myanmar. Whether it be the television which allows people to watch their Korean and Thai soap operas, the smart phones that everyone now seems to possess, or the air-condition present in many shopping centres and office buildings, all these things require electricity. Yet with an electrification rate of approximately 25-28% - a rate that drops dramatically in rural areas – these new appliances are too much for the country's grid to handle, leading to frequent blackouts. One response to this energy shortage is a focus on building up the country's hydropower capacity. Whilst renewable energy has generally been viewed in positive terms<sup>1</sup>, it can have potential adverse effects in this case. What particularly intrigued me was the lack of research that has been done on the question of dams and their link to (ethnic) conflict so far, especially given the effect on-going conflict at dam sites and other major infrastructure projects has had on the peace process, an issue that will be analysed in further details in this thesis. The lack of

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<sup>1</sup> With large hydropower dams being considered a source of renewable energy here

international coverage and interest in this as a subject matter only served to further peak my interest. It is mainly local NGOs (with few international exceptions) who have been researching, documenting, and advocating against dam construction on the Salween River. Whilst the subject of hydropower dams and conflict is slowly gaining traction in the international sphere (Brennan 2015), it is still mainly swept under the rug. Thus, one of the purposes of this thesis is to help shed some light on the matter.

Given my previous interest in the country, I had gone into the field believing I had at least some working knowledge and background about the country. After my fieldwork in Myanmar and the extensive research conducted, I realised the deep intricacies involved when discussing Myanmar. The complexities surrounding this nation and the current state of transformation only added to the intrigue and the importance, in my opinion, of looking into this subject matter further. The immense cultural diversity among its population, the nuances and problems, the question of electrification or lack thereof, the history and the hatred that seems to still be simmering below the surface when you speak to people about the government, coupled with the lack of research on Myanmar given its isolation until a few years ago, made hydropower dams in Myanmar an intriguing subject of study. Moreover, with Myanmar opening up to business and foreign investment more and more, understanding the history of ethnic conflict and protest to such dams is of growing importance. Myanmar's currently untapped economic and industrial potential, coupled with its geostrategic position between Asia's two powerhouses - India and China – suggests a bright future for Myanmar and its people, especially considering its vast natural resources (for example natural gas, oil, and hydropower) and the continent's growing demand for electricity (Kuenzer et al. 2013, 565). It also leaves it potentially vulnerable to exploit or mismanagement of its natural resources, which makes an early acknowledgment of such problems and their correct handling vital.

Yet despite the progress that has occurred, up until only a few years ago Myanmar was known as “a country which has experienced almost incessant armed conflict, international isolation, enduring poverty and the gradual consolidation of military government” (Thant Myint-U 2001, 253). This picture has shifted considerably after the new government started the democratization process in 2011, thrusting the country from

decades of isolation and earning it praises worldwide<sup>2</sup>. Contracts for hydropower dams, gas pipelines and other energy projects have been signed in vast numbers in Beijing, Delhi, Bangkok and Naypyidaw in recent years (Simpson 2014, 1). These large-scale investment projects are mostly located in the borderland regions of the country, the areas where most of Myanmar's natural resources are in fact located. These borderlands are where "regional cross-border infrastructure and millennium-old trade networks converge" and represent some of the last remaining resource-rich areas in Asia (Buchanan, Kramer, and Woods 2013, 2).

However, the borderlands are also those regions of Myanmar that are most impoverished and isolated. Moreover, Myanmar is still entangled in some of the world's longest running civil conflicts<sup>3</sup> (South 2011, 6) on multiple fronts and with various ethnic minorities of those border-regions, with human rights violations consistently occurring (PHR 2012, 10). A large component of what has fuelled this on-going civil war has been the economic grievances experienced by ethnic groups. These are often tied to resources<sup>4</sup> being extracted from the peripheral border areas (where the majority of ethnic minority groups reside) to help develop the urban core (which is controlled by the military and business elite) without them having any say in the matter, or receiving compensation/funds from it (Buchanan, Kramer, and Woods 2013, 3). Thus, whilst the government of Myanmar has been promising pro-poor reforms as well as people-centred development to benefit the farmers who arguable represent the backbone of Myanmar's economy, reforms have tended to focus on urban elite and middle-class entrepreneurs, whilst over 75% of the population still remains underserved in transport infrastructure and electricity (Buchanan, Kramer, and Woods 2013, 3).

Hence, whilst these sort of large infrastructure investments are likely to impact on the peace process and are far from conflict-neutral, these issues have often been downplayed by donors and investors alike, who instead seem to be focusing more on the country's progress, as well as its economic and developmental potential. What then are the realities on the ground? Can Myanmar's huge energy potential be reconciled with environmental conservation and indigenous rights? The intention then is to explore

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<sup>2</sup> With the exception of the recent outbreak of violence against the Rohingya

<sup>3</sup> Details on this will be provided in Chapter 4

<sup>4</sup> Hydropower dams are regarded as part of resource extraction here

how the lack of participation of local ethnic communities in such large-scale projects in Myanmar can contribute to further marginalisation and fuel armed ethnic conflict.

### **Hydropower for sustainable energy**

Demand for energy and its associated services is on the rise worldwide in order to meet social and economic development (Edenhofer et al. 2012, 7). Energy services<sup>5</sup> are required in order to help meet basic human needs, such as for lighting, cooking, transport, industries and much more. And whilst access to electricity has a positive impact on a wide range of factors impacting rural communities, from improved health, to access to communication and information, to better educational facilities, economic prosperity and improved standard of living (Muchunku et al. 2013, 3), it has, at the same time, led to a stark growth in carbon dioxide (CO<sub>2</sub>) emissions through the increased global use of fossil fuels. According to UNEP, irreversible climate changes due to carbon dioxide emissions have already taken place (UNEP 2009, 11). Continuing down the same path as we have done in the past does not seem like a valid option anymore. How do we then reconcile developing countries' energy needs in order to expand and build up their industries with the catastrophic consequences of continuing with "business as usual"? How can we possibly manage to feed the energy needs of the 1.3 billion people still without access to electricity (WWAP 2014, 13)?

One way of doing so is a higher use of and reliance on renewable energies. Renewables are "forms of energy that are not exhaustible, as are fossil fuels" (Goldemberg 2012, 46). They represent energy sources that are produced from "geophysical or biological sources that are naturally replenished at the rate of extraction" (Goldemberg 2012, 29). As well as having a large potential to mitigate climate change, renewable energy can provide wider benefits, such as contributing to social and economic development, improving sustainable energy access, a secure energy supply, as well as reducing negative impacts on the environment (Edenhofer et al. 2012, 7).

There seems to be a certain trend of countries slowly jumping on board the renewables train. And within that pool of possibilities, many seem to be favouring hydropower. In

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<sup>5</sup> Energy services are "an energy system that is made up of an energy supply sector and energy end-use technologies" with the objective of delivering such goods as lighting, cooked food, refrigeration and transportation, to the consumers (UNDP 2000, 4).



2008 and 2009, hydropower provided approximately 16% of the world's electricity generation, which accounted for more than 80% of renewable energy sourced electricity generation (Turkenburg et al. 2012, 795). Indeed some countries run virtually solely on hydropower, as seen in the example of Norway (Energy 2015, 25). However, even here, where 90% of people are positively inclined towards hydropower as an energy source (TNSGallup 2014, 24), large-scale hydropower dam development has effectively drawn to a halt after the last big project was constructed in Alta in the 1980s against large opposition from conservationists and indigenous activists (Karlstrøm and Ryghaug 2014, 657). This can in part be explained by the fact that whilst people might generally have a tendency of looking at renewable energy favourably, many subscribe to the "Not In My Back Yard (NIMBY)" idea when it comes to the actual construction of e.g. hydropower dams or wind farms, though one cannot generalize and must view support and opposition for particular developments within their specific context (Karlstrøm and Ryghaug 2014, 658).

In Asia, and China in particular, dams have had a longstanding history. This has no doubt contributed to the vast amount of installed hydropower capacity in Asia, which will only expand in the next years as the economies in the region are expected to expand further. Whilst China needs more energy to sustain its past growth rate, Thailand's government estimates that the country's electricity demands will almost double by 2021 (EGAT 2009, 61). In order to achieve this augmented electricity demand, both countries, along with India, have been looking towards Myanmar to help satisfy their electricity needs, a move heavily contested by civil society (Middleton, Garcia, and Foran 2009, 23).

Myanmar on the other hand, has abundant water resources and hydropower potential<sup>6</sup>, and only about 1% of this potential is being realized so far (UNDP 2013, 13). Myanmar has 24 operational dams and is constructing 7 more, while preliminary agreements have been signed for 35 projects according to Min Khaing, director of the department of hydropower implementation at the Ministry of Electric Power (Vrieze 2015). If all projects are built it would raise the total amount of hydropower generated in Myanmar

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<sup>6</sup> At least 34 GW of achievable large-scale hydroelectric capacity

to 43,709 MW, up from the currently installed 3,011 MW, according to Min Khaing (Vrieze 2015).

Myanmar provides a very interesting case study due to its vast amount of hydroelectricity resources, rich biodiversity and oil and gas reserves whilst at the same time demonstrating an electricity coverage of only 28% (Bodenbender, Messinger, and Ritter 2012, 14). Electrifying the country will require vast investments and Myanmar's economy is expected to grow, mainly due to foreign investments in hydropower, natural gas and oil and commodity exports (PwC 2014, 8). Not only does energy exploration and export help build up trade relations, whilst also being of geostrategic interest in the region, it also brings in a vast amount of revenue and technological know-how from foreign companies willing to invest in infrastructure in the country which also helps Myanmar in its quest for electrification. However, these big dam sites are located within ethnic minority states that are more often than not, still experiencing on-going conflict between the rebel groups and the Burmese military (MPM 2013, 5-9). Whilst not necessarily the main point of contention, the going ahead of such big infrastructure projects without people's consent on the ground, has definitely been one of the reasons why conflict around such projects has occurred (MPM 2013, 3).

### **1.1.1 The many peoples of Myanmar**

In a region where millions of people depend on the natural resources provided by rivers, as well as the ethnic diversity that has flourished for centuries across these rivers, many proposed dams pose not only environmental risks, but could also lead to the extinguishing of century old traditions.

Classified as “one of the world's most ethnically diverse countries” (Gravers 2014a, 149), Myanmar has officially identified and recognized 135 ‘national races’. Of the 51 million people living in Myanmar, approximately one third is calculated as belonging to ethnic minority groupings. Thus, the Burman majority makes up about 70%, followed by the Shan (9%), the Karen (7%)<sup>7</sup>, the Mon (5%), the Rakhine (4%), the Kachin

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<sup>7</sup> However, it should also be noted that there is still a large amount of Karen people unaccounted for, since they are internally displaced or living across the border in Thailand in IDP camps.

(3.5%), and the Chin (2%)<sup>8</sup>. This large amount of ethnic diversity does not come as a surprise when taking a close look at the geography of the country. However, the lines of ethnicity cannot be demarcated that easily. Some ethnic designations may serve as an umbrella term covering a vast amount of sub-groups (e.g. the name 'Chin' encompasses approximately 60 further sub-groups, not all of which would actually designate themselves as 'Chin'). On the other end of the spectrum you have other groups that are not even officially recognized (most notably the Rohingya) (Gravers 2014a, 149).

### **The Karen Ethnic Group**

As we have seen, there is a myriad of ethnicities in Myanmar. However, as my fieldwork focused on the Karen State area and Karen populated villages, I would like to take the time here to introduce a little more specific information about this particular ethnic group. The term 'Karen' generally refers to a group of people inhabiting the hills and plains on both sides of the Thai-Myanmar border (Hayami and Darlington 2000, 137), as well as the central delta area (KWO 2010). The majority reside within Karen State, Pegu Division, Tenasserim Division and the Delta Region and traditionally have an agrarian lifestyle (KRW 2004, 17). Yet, whilst the term 'Karen' is used to lump together approximately 4-5 million<sup>9</sup> people into this one group, those labelled with the term actually hail from some quite different, but in the same vein related cultural and language groups, with their own distinct identities and do not even necessarily understand one another. My contacts with whom I visited the more rural villages with, who were all ethnically Karen but hailing from different language groups, had to speak Burmese with each other and with the villagers because they could not understand each other otherwise. The image becomes further complicated by the fact that in Myanmar ethnic labels often also can serve as political labels for insurgent groups (Hayami and Darlington 2000, 138), so that for example some of the Pa-O have their own insurgent groups and vehemently distance themselves from the other major Karen insurgent groups (Hayami and Darlington 2000, 138). The two main groups are the Sgaw and Pwo Karen. Here Karen will be used to refer to those mostly living by the Salween

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<sup>8</sup> This only encompasses the biggest ethnic groups. There are numerous other smaller ones. However, for the purposes of this thesis, focus will lie on the aforementioned groups

<sup>9</sup> Even this number is a major point of contestation within Myanmar. Whilst scientists have estimated the number of Karen as being around 4 million, the Karen National Union calculates it as being as high as 7 million, versus the military government claiming it to hover at around 2.5 million.

River. Whilst the struggle of the Karen and other minority groups is often termed ‘ethnic’, as if the ethnic dimension is the most prevalent factor, it is actually more like an after-the-fact interpretation of conflict situations (Gravers 2014b, 177). The concept of social memory plays an important role in how violent conflict in Myanmar has been termed ‘ethnic’, and this has been translated into the Karen identity formation. Thus, for the Karen,

suffering, victimhood, fear and mistrust are the major results of their long conflict and these grievances have occupied Karen ethnic identity as dominant elements of their identity together with classification of the Burmans as the ‘incompatible others’ (Gravers 2014b, 177).

This is not only a distant memory. Many Karen-populated areas have been “subject to insurgency and often brutal government counter-insurgency operations since 1949” (South 2011, 2). The impact on the civilian population has been immense and has resulted in as many as 89.000 internally displaced people (IDPs) in Karen State alone, in addition to 130.000 mostly Karen refugees in camps on the Thai-Burmese border as of 2012 (Schroeder and U 2014, 199). Poverty, displacement as well as human rights abuses have been widespread across the region and have almost become the norm (Schroeder and U 2014, 199).

The specific focus on the Karen ethnic group was chosen for a variety of reasons. One of these reasons was a mix of coincidence and practicality in that the village I was able to visit on the Thai side of the border during a Conference which preceded my fieldwork in Myanmar, majority-wise belonged to the Karen ethnic group and would be impacted by the Hat Gyi dam. Moreover, the contacts I had made during my stay in Thailand were with an ethnic Karen organisation that provided me with access to the area. However, it also had to do with the proximity of and accessibility of Karen State to Yangon and the amount of information available on the Karen people.

## **1.2 Objectives and Research Questions**

With this thesis I wish to show the importance of and interconnectedness of history, ethnicity, inclusion and power relations with regards to hydropower development in the case of Myanmar. It also hopes to demonstrate the importance of creating open and participative processes in hydropower projects in order for it to be an inclusive process,

benefiting all stakeholders involved. Thus, the purpose of this thesis is to examine the driving forces behind the Hat Gyi dam on the Salween River – both political and economic - and how the prospect of it being built affects ethnic conflict in Karen State.

Myanmar is a relevant case, because of its high potential for hydropower development; the extremely low electrification rate; and the high dependence of ethnic minority groups in the rural border areas of the country on natural resources.

This thesis will explore how economic drivers within dam development, both domestic and international, and local grievances attached to their lack of access to economic benefits (among other things) contribute to conflict on the ground. I will use a historical approach, drawing on political ecology, specifically analysing the positions and perspectives of various stakeholders and the power relations between them, ranging from the local, to the international (regional) sphere. The thesis thus aims to provide a multi-faceted analysis considering the “historical, political and economic contexts at different spatial and temporal scales” (Castree in Budds 2004, 324).

### **Sub-questions**

- 1) How does the dam relate to the on-going ethnic conflict and the socio-historic background of the country?
- 2) What are the international drivers behind the dam construction and what are their implications?
- 3) What are the perspectives of the various stakeholders in Myanmar on the dam and to what extent are they involved in planning process behind it?

## **1.3 Thesis structure**

In this thesis I will examine the drivers behind the expansion of hydropower dams in Myanmar, and what consequences these dams may have for ethnic conflict, particularly within Karen State. Furthermore, I will be looking at how the local population who will be impacted by the dam in question has been informed and allowed to participate within the planning of the dam project. For this purpose, a short account of how ethnic conflicts have historically evolved in this country will be provided. There are many complex issues related and interlinked with the dam-conflict nexus, and whilst such

issues as geopolitics, human rights issues and to an extent land rights will be dealt with throughout this thesis, others such as deforestation and democratization efforts will not be treated in the present work.

The thesis is divided into nine chapters. The introduction chapter provides a short overview of the problem of dam construction within Myanmar, introduced the Karen ethnic group which will be the focus of this study and presented the research questions. In Chapter 2 the analytical framework utilised in this thesis will be discussed. In Chapter 3 the Methodology will be presented, providing a detailed description of the methods utilised and the limitations encountered when conducting research. The historical background of Myanmar will be introduced in Chapter 4, presenting its history and colonial past, specifically focusing on the issues of ethnic minorities, tracing the current conflict back to when it started after independence in 1948. Moreover, the developments behind the peace and ceasefire processes and their current states and why they are important when discussing the question of dam construction in Myanmar will be presented. Chapter 5 will present the importance of the energy-development nexus and focus on the discussion surrounding hydropower dams in order to provide a holistic overview of the subject, presenting the positive and negative issues associated with such forms of renewable energy. It will also introduce the dams on the Salween in general and the Hat Gyi dam as our case study in particular, describing the importance of the area, how people feel about the River and what they use it for, before introducing the international political dimension of the push for dam construction in Myanmar in Chapter 6, whilst also presenting the various stakeholders involved and showcasing the government's attitude towards dam construction. Chapter 7 in turn will focus on the local perspective by looking into the case studies of this study, as well as presenting the views of civil society and ethnic armed groups on the matter of the construction of the Hat Gyi dam. In Chapter 8, all these elements will be put together in a joint discussion of the overall theme: how the construction of such large dams, without the consent and participation of ethnic minority groups living there not only serves to marginalize those same people, but also results in fuelling the armed conflict that is still on-going in Karen State. Lastly, Chapter 9 will offer some concluding thoughts and remarks.

## 2 Analytical Framework

A thesis is like a complicated dinner recipe: it requires the right ingredients, time, patience, the occasional outbursts of shouting when things go awry, but most of all it needs instructions and guidelines for how to prepare the hopefully tasty end result of a dinner. The analytical framework presented in this chapter is exactly that – the recipe that will guide us to our main event: the analysis of the history and fieldwork findings. First, a general overview of the analytical setting will be provided as well as how I situate myself within it. I will then go on to present the main analytical tool utilised for this study, namely political ecology, and explain the reasons behind choosing this particular framework, as well as the other concepts of participation and ethnicity that will be additionally utilized.

“In the field of development and the environment, the complexity of problems at hand calls for an interdisciplinary approach” (McNeill, Garcia-Godos, and Gjerdåker 2001, 11). Doolittle concurs, noting that “the study of human-environmental relations is complex and by nature draws on theories and practices from multiple disciplines” (Doolittle 2010, 67). Thus, given the variety of issues and problems explored in this study, ranging from hydropower, politics, history, ethnicity and power relations, an interdisciplinary approach has been deemed most appropriate in order to gain a more holistic view of the question at hand. In this regard I will be drawing from the fields of anthropology, development studies, human geography and politics.

Whilst certain disciplines have insisted on dividing the world of theory into two camps, namely inductive or deductive theorising, I will postulate, following Fine, that “the inductive and deductive models of research can never be disentangled” (Fine 2004, 11). Thus, I concur with Fine in that “theoretical analysis is not something that occurs only before entering the field or after one has been in the field, but is a continuing and recursive process” (Fine 2004, 11). I went into the field with my own set of preconceptions, “which can be labelled pro-poor, pro-participation and rights-based” (Hirsch 2010, 30), and focusing on power relations and the situation of marginalised groups.

The overarching theoretical framework utilised is political ecology. Political ecology was chosen due to the broad interpretation possibilities it provides, its inherent focus on interdisciplinarity, as well as its emphasis on power structures and scales (both temporal and spatial), all of which are invaluable when analysing large hydropower dams and their implications in the case of Myanmar.

The framework takes into account the local, the regional, and the global levels. Thus, within political ecology, a specific focus will be laid on stakeholder analysis since it examines “the general role and significance of selected actors”, helping us to “situate the findings of much local-level empirical research in theoretical and comparative perspective” (Bryant and Bailey 1997, 24-25). This seeks to provide a relatively comprehensive picture of the motivations, interests and actions of those actors, specifically looking at their political strengths and weaknesses (Bryant and Bailey 1997, 25).

## **2.1 Political Ecology**

The definition of the term itself is not without its own set of problems since political ecology has different connotations for different people, with some even utilising the theory without explicitly referring to it (Walker 2006, 384). In general terms, political ecology is concerned with attempting to understand “the complex relations between nature and society through careful analysis of social forms of access and control over resources – with all their implications for environmental health and sustainable livelihoods” (Watts and Peet 2004, 3). It aims at demonstrating “empirical, research-based explorations to explain linkages in the condition and change of social/environmental systems, with explicit consideration of relations of power” (Robbins 2004, 12). It is characterized by

attention to the diversity of ecological environments; a sensitivity to the role of the state and the wider global economy in fashioning environmental change; contextual analysis of multiple scales of influence; emphasis on the diverse responses of decision-makers; and affirmation of the centrality of poverty, exploitation and inequality as causes of ecological deterioration (Jones 2008, 672).



Its analytical focus which looks at power-relations among varying groups and the influence between these relations and diverse aspects of their environment, has “led to results that challenge dominant interpretations of the causes of environmental degradation and contest prevalent prescriptions for solving such problems” (of environmental degradation) (Paulson, Gezon, and Watts 2003, 205).

Political ecology emerged in the 1970s as a response to what can be referred to as ‘apolitical ecology’, which represented the dominating way of describing environmental change. Apolitical ecology’s - mainly represented by neo-Malthusianism - central argument for environmental degradation and change was that of population growth and the scarcity of environmental resources. It viewed human-environment relationships in terms of “absolute, quantifiable, and discrete variables and limits, whether for population, resources, or economic growth” (McCarthy 2012, 616) and promulgated the necessity of population control in order to tackle ecological degradation, leaving out issues pertaining to the global distribution of power and goods (Robbins 2004, 7), thus tending to place the blame on the poor. In comparison, political economy sought to look at those same relationships in a more holistic and relational manner, considering the politics involved within them (McCarthy 2012, 616). Its intellectual origins relate back to Neo-Marxism, which based itself on the three major frameworks of core-periphery dependency analysis, global capitalist system/world system theory, and class inequality analysis<sup>10</sup> (Khan 2013, 461). One of the key insights this emphasized was the link between local ecological changes and how they are interrelated with global relations of power (Baghel and Nüsser 2010, 233).

This framework has, however, been marked with criticism, especially on the grounds of their economic reductionism, which has tended to overlook other non-material dimensions of power (Khan 2013, 462). In an attempt to provide a more encompassing framework and fill the gaps that political ecology exhibited, a post-Marxist turn can be

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<sup>10</sup> Core-periphery theory: “Reflects on the lengthy structural subordination of third-world countries to the developed world through exchange relations, with perhaps less focus on the social relations of production underpinning those relations” (Khan 2013)

Global capitalist system: Postulates that the “‘laws of capitalism’ to guarantee profit, in turn leading to social and economic disparity, political and cultural oppression and the depletion of natural resources” (Khan 2013)

Class inequality analysis: Here the “emphasis is on profit accumulation by the capitalist class at the expense of the natural environment, natural resources, and other classes” (Khan 2013)

discerned from the end of the 1980s, which arose from various currents of postmodernism, post-colonialism, post-structuralism and feminism, and resulted in what has been labelled as ‘second-generation’ political ecology (Baghel and Nüsser 2010, 233). This sought to demonstrate a more “complex understanding of how power relations mediate human-environmental interaction” (Bryant 1998, 82). Scholars have thus drawn on neo-Webarian theories, on ecofeminist and household studies to examine power relations within the household and its impact on the control of land and natural resources. Others have focused on social movements theorizing to link political ecology with grassroots actors and concepts of everyday resistance, just to name a few (Bryant 1998, 82). Others have utilized discourse theory in order to study the ways in which “knowledge and power may inter-relate so as to mediate political-ecological outcomes” (Bryant 1998, 82).

Thus, if put in general terms, early political ecologists sought to “demonstrate impacts of marginalization, land tenure, or production pressure on environmental changes such as soil erosion and deforestation” but often did not examine how the environment is “negotiated and affected through actions in arenas such as the household, the workplace, the community, and the state” (Paulson, Gezon, and Watts 2003, 210). Current research continues to seek better methods to understand how the “unequal power relations amongst social groups, and the 'knowledge' that mediates human-environmental interactions, are reproduced as present-day ecological changes on all scales” (Baghel and Nüsser 2010, 233) and learn about and from participants in these arenas. What is more, whilst early political ecology focused on more broad regional themes (such as the deforestation in the Amazon), the 1990s saw a move towards focusing more on ‘micro-politics’ and individual ‘micro’-scale case studies (Walker 2006, 387).

### **Common Assumptions**

In summary then, some of political ecology’s general assumptions is the common premise that “environmental change and ecological conditions are the product of political process” (Robbins 2004, 11). Linked to this are three fundamental assumptions when looking at a research question. Thus, political ecologists

1) accept the idea that costs and benefits associated with environmental change are for the most part distributed among actors unequally...(which inevitably) 2) reinforces or reduces existing social and economic inequalities...(which holds) 3) political implications in terms of the altered power of actors in relation to other actors (Bryant and Bailey 1997, 28).

It also implies an acceptance of “plural perceptions, plural definitions...and plural rationalities” (Blaikie and Brookfield, 1987 quoted in Watts and Peet 2004, 10). In essence what this is demonstrating is that one person’s paradise can be another person’s hell. Political ecology then offers an analysis on how nature and the environment are represented and how the discourses surrounding these topics shape policy and practice (Watts and Peet 2004, 10). Lastly, as we have come to see, political ecologists share “a broadly similar political economy perspective but adopt a variety of approaches in applying that perspective to the investigation of human-environmental interaction”, which in turn reflects differing research priorities within the field (Bryant and Bailey 1997, 20). In this study, I will be looking at the (economic) drivers behind dam construction in the first place, and how the various groups implicated view the cost-benefit sharing among other things. Thus, it will in part, examine how politically and economically marginal ethnic minorities are affected by the potential hydropower developments.

Beyond its broad applicability and interpretation possibilities, political ecology was also chosen because through its analysis, winners and losers, hidden costs, and the differential power that produces social and environmental outcomes can be revealed (Hirsch 2010, 34). Political ecology serves to formulate an understanding of the “connectedness of the social, economic, political and ecological impacts” of large dams (Baghel and Nüsser 2010, 233). It further helps zoom in on who the relevant actors in the dam debate are and what their specific interests may be (ranging from the global – as represented by the external influences of China and Thailand; to the local village perspective and civil society point of view). The acknowledgment of the importance of history is also a prominent feature of this thesis and in very broad strokes hopes to examine the link between history, ethnic conflict and the impacts it has on the debate over dams on the Salween.

Taking an in-depth look at all the actors involved is useful because it provides us with comparative insights as to the role and significance of those actors: what motivates them

to act in certain ways, what their interests are and how those actions impact other actors at play (Bryant and Bailey 1997, 25). In so doing it helps us overcome the challenge of identifying the different and sometimes conflicting pressures on policy-makers in order to better understand how certain policies have come to pass (Bryant 1992, 18), but also helps us in exploring previous policy choices and how they resulted in environmental change. State policies are not formulated in a “political and economic vacuum. Rather, they result from struggle between competing actors seeking to influence policy formulation” (Bryant 1992, 18).

### **General Critique**

For all political ecology has to offer in the realm of research, its all-encompassing ideal has also been criticized as being one of its biggest weaknesses. The incorporation of so many layers and different interpretations, has led to there not being one single coherent theoretical approach or message behind it (Walker 2006, 284). There are numerous interpretations and definitions that can be applied to such concepts as ecology or political economy on which the theory is based on (Watts and Peet 2004, 9). However, Peet and Watts also mention that political ecology lacks theoretical coherence, which has resulted in it becoming “radically pluralist and without politics or an explicit sensitivity to class interest and social struggle” (Watts and Peet 2004, 8). Others have responded to these allegations by countering that in fact political ecology “as an analytical approach has far greater theoretical coherence than existing methods for explaining how processes of environmental and social change occur within dynamic spatial and political configurations” (Rangan 2000, 62). Rangan further notes that this diversity is actually fundamental to its theoretical coherence (Rangan 2000, 63) .

Political ecology has also been accused of knowing the answer before beginning research and being analytically weak in its approaches (Vayda and Walters 1999, 167). However, unlike apolitical theorization, political ecology “recognizes the human/non-human relationships to be linked through dynamics that may yield unpredictable consequences” (Rangan 2000, 63). They insist that political influences, especially from “so-called wider political-economic system” are always important, further contesting that political ecology has managed to end up as “politics without ecology” (Vayda and Walters 1999, 168). Responding to this, Watts and Peet point to the fact that it is

important to look at exactly what we consider as being ‘the environment’. They go on to criticize Vayda and Walters by noting that they only consider the environment as being the expression of “the biophysical events of environmental change” (Watts and Peet 2004, 19). Instead, political ecology seeks to open up the category of the environment itself and examine what we mean by it and the myriad of representations it encompasses (Watts and Peet 2004, 19).

In conjunction with the overarching framework of political ecology, the following concepts have helped provide a more comprehensive shopping list of ingredients to choose from to make it a well-rounded dish.

### **Power relations**

Understanding the unequal relations between different actors is key in order to understand the patterns of human-environment interaction and how they correlate to environmental problems. These unequal relations are predicated on notions of power and who wields it. Vast literature covering the various dimensions of power exists (e.g. Lukes and Foucault), however, political ecologists have “primarily understood this concept in relation to the ability of an actor to control their own interaction with the environment and the interaction of other actors with the environment” (Bryant and Bailey 1997, 39). A historical perspective of how those power relations came to be is also important, which will be covered in chapter 4.

This power over another’s environment can be exerted in various ways. An actor can attempt to control access to a diversity of resources such as land or water. This may be done in order to gain the single control over those resources for the sake of economic gain associated with the extraction or commodification of those resources (Bryant and Bailey 1997, 39). States may demonstrate their power over other actors by determining “who exploits selected environmental resources, the conditions under which those resources are exploited and often even for what purposes they are used” (Bryant and Bailey 1997, 40). This can be interpreted twofold in the case of Myanmar. Thus, in general terms, the government, with the help of the military, is able to exert the above-mentioned power over the population. On the other hand, armed ethnic groups have in the past controlled vast areas of importance concerning natural resources, and continue to do so in certain regions, leaving the local village population in the weakest position.

Bailey and Bryant argue that actors can exert control over the environment of others by influencing/determining the location of the sites at which industrial pollution is generated and released into the environment. “Power here, is about attempting to avoid or at least minimize the costs associated with the manufacturing process” (Bryant and Bailey 1997, 40).

Bailey and Bryant further maintain that an actor can exert control over the environment of others in a more indirect manner and through discursive means. Here, “power is about control over material practices, but it is also linked to the attempted regulation of ideas” and thus can be seen in a way as “a matter of ‘winning the battle of ideas’ over human use of the environment” (Bryant and Bailey 1997, 41). This can be particularly seen by the fact that the government seeks to underline the positive characteristics of hydropower dams for the country and not mentioning what the negative issues could contain, especially with relation to local livelihoods, an issue often lamented over by my informants. Moreover, this can be tied to the notion of elites justifying the unequal use of the environment in terms of “the greater social good” (Bryant 1998, 87).

Leftwich’s notes that “decisions about resource management always involve political relations of co-operation and conflict” (Leftwich, 1983, quoted in Howitt 2001, 81). This indeed seems to be the case in Myanmar, where the lack of power over resources and lack of co-operation between the central government and ethnic minority areas has resulted in de-facto conflict.

## **2.2 Participation in Development**

What participation essentially means is the exercise of popular agency in relation to development. In general, the concept has often been associated with claims of “empowerment” and “transformation” (Hickey and Mohan 2005, 237) and indeed most development agencies now agree on the fact that “some form of participation by the beneficiaries is necessary for development to be relevant, sustainable and empowering” (Hickey and Mohan 2005, 237). What participation in development asserted in the 1980s was the importance of placing local realities at the heart of development interventions (Hickey and Mohan 2004, 9). It was born out of the perception that many

top-down models of development in the past had failed (Hayward, Simpson, and Wood 2004, 95).

There are multiple definitions of participation and what the concept actually represents and entails. It has tended to mean different things to different people: “For some, it is a matter of principle; for others, a practice; and for still others, an end in itself” (Hayward, Simpson, and Wood 2004, 98). Hayward et al. have also suggested that in looking at participation, it is important to look at the *why* people participate and *what the result* of this participation is as a ways of gaging participation more inclusively (Hayward, Simpson, and Wood 2004, 98). Arnstein has defined participation as

The redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future. It is the strategy by which they can induce significant social reform which enables them to share in the benefits of the affluent society (Arnstein 1969, 216).

I find this definition very helpful and believe it to be pertinent in the case of Myanmar and its citizens, Burman and ethnic minorities alike. As will be demonstrated in following chapters, this redistribution of power has so far not materialised in a way that enables citizens to share in the benefits of development projects. Whilst we do need to take into account the fact that Myanmar has only started its reform process a few years ago and still has a long way to go in this regard, those suffering from development projects initiated under the military authoritarian regime are suffering now. As we will see, the problem in the context of the Karen people is that participation is not guaranteed when it comes to the dam project, with the majority of people still being unaware of any dam project on the Salween in the first place, not to mention having a say in the matter. This is particularly problematic considering Scudder emphasizes that not only is participation of local people vital for the success of a dam project, but participation should already start during the option-assessments process, because that is when the environmental, social and equity implications of various options are first considered (Scudder 2006, 309).

The concept of participation has also received major criticisms, which stipulate that it focused on the local at the expense of addressing wider structures of injustice or that did not engage with issues of power and politics substantially enough (Hickey and Mohan

2005, 237; Hickey and Mohan 2004, 9). In order to achieve the desired “power” transformations between “uppers” and “lowers”, participatory roles need to be attributed to the “subjects of development” at every stage of such development interventions (Hickey and Mohan 2005, 241).

## **2.3 Ethnicity**

Given the central role ethnicity will play in further discussions of both the history of Myanmar, but also in the analysis chapter, a closer look at “ethnicity” and what is meant by it, will follow. In Myanmar, as has been the case in other countries, discussions surrounding the role of ethnicity –it either being a source of conflicts and thus a threat to the nation-state, or whether it is an essential element in democratic development – have been abundant (Gravers 2007, vii). Indeed, the main point of view of the ruling military dictatorship, and one of the reasons often cited by it for justifying the power take-over in the first place, is the fact that the Tatmadaw (Burmese military) considers ethnic federalism (one of many insurgents’ point of contention with the government) as a relic from the colonial past and deemed as aiming to fragment the Union of Myanmar (Gravers 2007, x). Thus the ruling class, until recently has seen political claims based on ethnicity as a direct threat to the stability of the state.

As we can see already, the term ‘ethnicity’ and ‘ethnic minority’ carries with it a lot of weight and specific connotations to the different groups involved. All terms used to describe the ethnic groups, such as ‘nationality’, ‘tribal’, and ‘indigenous peoples’ can be politically sensitive and often may imply a particular form of political recognition by the user (Smith 1994, 36). Terms such as ‘tribe’ are considered pejorative, whereas the terms ‘indigenous’ for example also includes the Burman majority, but excludes more ‘recent’ minorities like the Indians or the Chinese. Here, the terms ‘ethnic minority’ and ‘ethnic group’ will be used simply to distinguish the various ethnic groups from the majority Burman population.

But what exactly is meant by ethnicity? The word actually stems from the Greek word *ethnos*, originally meaning “heathen or pagan”, but appropriating a connotation with race in the mid-nineteenth century (Eriksen 2002, 4). It has become more commonplace to use such terms as ethnic groups or ethnicity since the 1960 in social anthropology,



although it has been noted that more often than not, researchers have a tendency of not defining what they actually mean by the term (Eriksen 2002, 4). According to Eriksen, social anthropology tends to regard ethnicity as referring to “aspects of relationships between groups which consider themselves, and are regarded by others, as being culturally distinctive” (Eriksen 2002, 4). He considers ethnicity

as an aspect of social relationship between agents who consider themselves as culturally distinctive from members of other groups with whom they have a minimum of regular interaction. It can thus also be defined as a social identity characterized by metaphoric or fictive kinship. (...) Ethnic groups tend to have myths of common origin and they nearly always have ideologies encouraging endogamy, which may nevertheless be of highly varying practical importance (Eriksen 1999, 39).

Ethnicity often forms one of the essential ways people imagine their place in the world. It represents an important source of “self-identification, solidarity and empowerment in terms of belonging to a community and to a common culture and history” (Gravers 2007, 2). According to Gravers, the term often refers to the same criteria as that of the nation state, namely “a named population, historic territory, myths, culture and historical memory” (Gravers 2007, 2). Eriksen further emphasizes that ethnicity and culture are not interchangeable, noting that many social anthropologists conclude that social interaction and social organization are more important to consider rather than focusing on “cultural content” (Eriksen 2002, 43).

This closer look at ethnicity is important in the context of this thesis, because many of the conflicts are framed in terms of ethnic conflict in the country. The colonial legacy and ethnic policies since then, have served to marginalize the minority ethnic groups and generate a complex array of actors involved in armed conflict.

Having presented the core analytical framework, we will now go on to look at the necessary ingredients for our recipe, also known as the Methodology Chapter.

# 3 Methodology

If the analytical framework is the typed out recipe, then the methods for collecting and interpreting ones data represent the ingredients needed in order for the true taste to be appreciated. It is the pinch of salt, garlic and pepper, perhaps even a bit of chilli powder if one is feeling particularly bold and experimental.

Using quantitative or qualitative research will provide varying and potentially contrasting results. Rather than focusing on testing a given theory, qualitative research prefers to build up theory from observations in comparison to quantitative methods that tend to be rather more deductive in nature and test theories by trying to disprove their propositions (Brockington and Sullivan 2003, 57).

There are various flavours at our disposal in order to cook up our qualitative research, which has been favoured in this instance with regards to data collection for the thesis, such as participant observation, semi-structured interviews, or the writing of ethnography, just to name a few (Brockington and Sullivan 2003, 57). The main tools utilised here have been drawn from semi-structured interviews with various actors in the field; consulting a large amount of reports from civil society organisations, NGOs and academic institutions; consulting historical sources; newspaper articles from local sources; history analysis; and participating in conferences.

## 3.1 Case Study Research

The case study contributes to our knowledge of individual, organizational, social and political phenomena. Many a time it is employed in an effort to help understand complex social going-ons. What the case study allows for is the retention of the “holistic and meaningful characteristics of real-life events” (Yin 1994, 3). Whilst similar in character to that of a history, the case study offers two extra distinctions, namely direct observation and systematic interviewing (Yin 1994, 8). Its strength lies in being able to deal with a “full variety of evidence – documents, interviews and observations” (ibid.), all of which will be employed throughout this thesis.

Yin defines a case study twofold. Firstly, the case study is an empirical inquiry that:

- Investigates a contemporary phenomenon within its real-life context; especially when
- The boundaries between phenomenon and context are not clearly evident;

Secondly, from a more technical point of view, the case study inquiry:

- Copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
- relies on multiple sources of evidence, with data needing to converge in a triangulating fashion, and as another result
- benefits from the prior development of theoretical propositions to guide data collection and analysis (Yin 1994, 13).

Given the complexity of the hydropower sector in Myanmar and the many dams either planned or under construction in various ethnic states, the case study method is employed in order to provide a more holistic picture of one particular dam project and understand why there is so much resistance to it and how the past developments have influenced the current situation. Whilst one must always be wary of generalisations, it could be argued that this case study provides a basic understanding of the situation that can be translated to and relevant for other cases in Myanmar, such as in Shan or Kachin State, to name a few.

This thesis aims at utilizing various sources to make its point come across. This works well with the case study method, as using multiple sources is considered one of its core strengths (Yin 1994, 91). Essentially, what triangulation stipulates is the study of the same phenomenon from different sources. All sources of evidence collected and reviewed will be put together into one pot and analysed cognitively, resulting in a “convergence of information from different sources” (Yin 1994, 91).

## **3.2 Data Collection in the field**

Embarking on fieldwork was an exciting yet intimidating endeavour. I felt like a novice holding a cooking knife for the first time and who has been asked to prepare a three course meal for a food connoisseur. My previous degrees have been in political science, and as such the closest to fieldwork I have come has been the library. Whilst that could be viewed as its own kind of jungle, this was a completely different experience, especially for someone who has never left the warm shelter and comforts of the Western

world before. Unfortunately, I do have to admit that my lack of previous fieldwork experience coupled with certain fears (some warranted, some not so much) did inhibit me in some respect. However, it also led to a great learning opportunity. Thus I can honestly state that data collection in the field has been one of the most rewarding experiences of my life so far and despite its shortcomings has provided me with much in-depth insights to Myanmar and its peoples.

### **Conference attendance**

In mid-November I embarked on my fieldwork research, starting with a conference on the Salween River at Chiang Mai University in Northern Thailand. The conference is an important part of this thesis, as it inspired me to continue research on this topic rather than renewable energy potential in Myanmar in more general terms. It also provided me with multiple contacts and new friends that helped me understand the topic through informal talks. Moreover, it put me in contact with representatives of KESAN who offered to help me in my fieldwork once I landed in Yangon.

The conference brought together experts, civil society organizations, academics, youth groups and some government representatives to discuss the issues pertaining to such a trans-boundary river as the Salween, as well as the current potential of dam construction and its consequences. During the two-day conference I learned a lot about various new topics, such as how dam construction can in some cases lead to more seismic activity as well as being introduced to various civil society networks and their experiences on the ground.

### **Choice of respondents**

After the initial actor-mapping, I attempted to contact as many people as I could in order to gain more insights and understand the local context better, which turned out to be more difficult than initially hoped. This is due to the fact that thanks to Myanmar's democratization process and the country opening up more and more, foreign actors – NGOs, international organisations, governments etc. – have started to gain, and demand, more access. In doing so, there is a huge influx of new information for grassroots in Myanmar to take in and deal with. This does not only apply to local NGOs, but also applies to government representatives and well-known academics and

researchers. What this meant in essence is that the majority of organisations were in quite a busy period meeting other new and important actors and since I was not affiliated with, nor representing any such organization, gaining access to people was more difficult given the time-frame available to me.

The choice of respondents was very much congruent on what is known as “the snowball effect”. When I first arrived in Thailand, I was still very new to the topic, was still rather unsure what to exactly focus on in my research, and did not know whom to contact or if my fieldwork was even feasible. However, by chatting with various Conference participants, researchers and grassroots actors there, I was able to build a small network of people who gave me insights into Myanmar and who eventually helped me establish contact with KESAN in Yangon. Furthermore, I was able to travel to and take part in discussions with villagers from the Thai side of the border that would be impacted by the Hat Gyi Dam as well, thanks to the Conference who organized said trip. Whilst I did not per se conduct an interview in that village, reporters and academics travelling in the group were asking the questions and recording the event, which has led me to believe that using information gained there would be admissible.

In total, ten interviews were held with various actors in different countries and locations. Ban Sob Moei village in Thailand will be counted as one interview in this regard. Six more were held in Myanmar during my fieldwork there, including an impromptu group interview. Interviewees were mainly grassroots actors (from KESAN and Shan Sapawa) and village leaders, with the exception of the group interview which was a spur of the moment happening and which was comprised of a group of retirees (around five women, and one man). In addition, I had informal conversations with journalists, who provided valuable insights to the situation on the ground that may not necessarily be openly discussed in the papers. In Norway, one interview was held with a representative from NVE, and one more interview was held via Skype with a researcher from the Institute for Security and Development Policy in Stockholm.

Government officials were not considered feasible options to contact for interviews for this thesis, given the still restrictive nature of the state. Since I was travelling on a tourist visa, which specifically prohibits one from doing anything else –such as work or research – I did not deem it possible or wise to contact government representatives for interviews. Whilst I do recognize that this may have been an over-exaggeration on my

part, it was my first time travelling there and I did not have prior knowledge of how seriously these laws are still perceived. Moreover, after having spent some time there I have also come to realise that meeting government officials is almost an impossible feat, particularly if one is not a high-ranking official or representative.

### **Access to informants**

Given that whilst Myanmar has indeed made strides when it comes to more freedom of speech and democratization efforts in comparison to some years ago, it is still a repressive government and travel restrictions for foreigners are still in place in many parts of the country. Furthermore, roads leading to the villages I visited would have been impossible to take on alone (notwithstanding the general rule that foreigners are not allowed to drive cars anyway). In this regard, I was very much dependent on the help of KESAN in the field to help me reach these rural areas in the first place. Moreover, foreigners visiting these areas need to apply for government permits, something I did not possess. Thus I did not strategically choose the two villages, but was rather joining KESAN on their awareness raising field trips.

However, it should be noted that it was unfortunately harvesting time in the villages, which meant that I was not able to meet and talk to various people within the village, but rather spoke to the heads of the village, limiting the number of interviews I had initially intended to hold. What is more, other villages closer to the actual dam site were not accessible to me given the fact that they are still considered active conflict areas with a high military presence and check points that I would not be able to cross.

### **Interviewing**

Interviewing is a central ingredient for many researchers to help understand the context of people's everyday lives better (Crang and Cook 2007, 60). It aids the researcher to identify better "what a set of people think" or how people interpret things in general (Aberbach and Rockman 2002, 673). One of the main strengths of conducting interviews is that it can provide information not accessible in documents or books and that may not be available to the public in any capacity (Richards 1996, 200). However, one must always be aware of the fact that the mind is a tricky thing and is influenced by our other senses or key words, which makes it impossible to guarantee replicability.

Moreover, not only is the information gained filtered through the interviewee's world view, but will also invariably be influenced by the interviewer's own point of view and what message he or she will want to put across (Syse 2001, 228). Moreover, another thing to be wary about is that the interviewee's neutrality can never be guaranteed. Some may have their own agenda to put forward, some may be influenced by other people around during the interview, some may just be having a bad day. All of this will have an impact on the results. Furthermore, interviews are not supposed to provide any kind of "truth" (Richards 1996, 200); rather, their purpose is to provide insights into different point of views on a given subject matter. Critique aside, interviews can help provide those not usually heard a voice (Syse 2001, 228), something which this thesis hopes to accomplish to some degree.

More often than not interviews will be conducted in an open-ended manner, which allows for a more fluid discussion with the interviewee rather than a strict question and answer framework and can thus help reveal other interesting titbits of information that otherwise might not have been uncovered. This is precisely the type of interviewing that was attempted during fieldwork. The interview guide can be found in Appendix 2. Conducting interviews was a vital part of data collection for this thesis. Whilst in the end much of the information used has come from reports and other documents, the interviews conducted provided rare insights in more rural settings and how people there relate to the question of dams on their river.

One of the biggest hurdles to overcome during the fieldwork process was the language barrier. I do not speak Burmese, nor Sgaw Karen, which is the language the local people spoke in the villages I visited. Language classes ahead of time were not possible, since the closest institute that offers Burmese as a language course- according to my research- was SOAS in London and I had neither the means nor the time to attend classes there. Whilst my contacts from KESAN spoke some English and I was able to communicate with them, some of them were self-taught (a feat I admire immensely), whilst villagers did not speak any English. Thus, I was sometimes unsure about how clearly the interviewees were able to understand the questions I was posing (my contacts were nice enough to act as translators), or the quality of answers I received translated by my friends. However, one of my friends in Yangon is a professional translator and with his help I was able to iron out any kinks in the translation. Whilst this helped with the

actual translation process afterwards, the question still remains as to how the inquiries I posed were interpreted and conveyed.

## **Recording**

In order to keep a detailed record of the interview, a recording device and in some cases my mobile phone (or both to be safe) was utilised each time. The informants were always made aware before use, and I asked their permission to use it during our conversation. This could potentially have had implications for how people respond to questions; some people might become shy, others might become fearful. However, in my interpretation of the situation, no one seemed preoccupied by my using a recording device and all of them consented to it. In addition to recording interviews, I also kept fieldwork notes so as to not forget everyday occurrences.

## **3.3 Ethical considerations and my role as a researcher**

England has warned that “(...) exploitation and possibly betrayal are endemic to fieldwork” (England quoted in Scheyvens and Leslie 2000, 119), raising the question to what extent it is appropriate for “privileged Western researchers” to conduct research outside their own cultures (Scheyvens and Leslie 2000, 119). Such statements raise important issues of what is at stake and how important ethical considerations are to fieldwork, something the researcher needs to be aware of at all times. As Madge writes, “ethical research should not only “do no harm”, but also have potential “to do good”, to involve “empowerment”” (quoted in Scheyvens, Nowak, and Scheyvens 2000, 139), something I agree should be aspired to. According to Scheyvens et al., there are two levels of power imbalances between researchers and research participants: “real differences associated with access to money, education, and other resources and; perceived differences which exist in the minds of those participants who feel that they are inferior, and researchers who give the impression that they are superior” (Scheyvens, Nowak, and Scheyvens 2000, 149). During my time in the field, I experienced both of the described power imbalances. Some things, such as our size, gender and colour, are things we cannot influence or change, but are also things that will invariably have an impact on how we are perceived and how we interact with



research participants. Being a single and female Westerner travelling on her own will have had an impact on my conversations with village residents and other informants in Myanmar, especially considering almost all of my interviews were conducted with village leaders who were all men. Whilst researchers have pointed out that “women will often be perceived as less threatening than men” (Devereux and Hoddinott quoted in Scheyvens, Nowak, and Scheyvens 2000, 151), which can help in lessening some of the above mentioned power discrepancies between researcher and research participants, it may also result in it being harder to be taken seriously (ibid.). I always made sure to be dressed in a respectful manner, wearing long-sleeved shirts and long pants covering shoulders and the knees, as is customary for women in Myanmar.

Given my lack of knowledge of the villages and what people there may or may not need, I did not offer any gifts for their time, something which did illicit a feeling a guilt. I asked my friends from KESAN on multiple occasions what an appropriate form of thanking would be, but was told that no reciprocity was necessary and that I should not get anything. I did buy some Sepaktakraw<sup>11</sup> balls for the children to play with and offered them as a thank you. However, one village leader explicitly asked me whether there was any way for me to offer support for education or health care on the island since the government does not provide such services to them, making me think that he perhaps interpreted me having more financial backing or power than is in fact the case. This came up in another interview as well, when one of the interviewees asked me what impacts the dam would have on them if it were built. Being painfully aware of the implications my answer to such a question could have, I tried to explain that I am not an engineer or geo-analyst and was in no position to know the answer to that question. As Scheyvens et al. have pointed out, power imbalances need to be taken into account, and marginalized groups may feel inferior during our conversation. Having that in the back of my mind, I did my best to always be respectful and communicate my gratitude.

One of the most important aspects of conducting ethical fieldwork is that it ensures the participants’ needs and concerns are taken into account, and that their dignity, privacy and safety be made the top priority (Scheyvens, Nowak, and Scheyvens 2000, 140). Interviewees were asked directly whether their identity should be safeguarded and I

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<sup>11</sup> A game traditionally played in Southeast Asia

made sure that they were aware of the fact that they can withdraw consent at any time of the process. However, this was only done orally, not in written form. Whilst this may come with its own set of complications (the only way they could retract once I left the field was through the KESAN contact we had in common), all of them gave consent and did not seem to have to even think about it.

## **3.4 Secondary sources**

### **Documents and bias within the literature used**

Given the fact that Myanmar is still at the early stages of its democratization process, coupled with the controversies that surround the dam development generally and on the Salween in particular, official documents on the dams are extremely difficult to attain. Thus, unfortunately no government documents were able to be found during the research for this thesis. Moreover, the lack of access in conjunction with ongoing conflict has also impacted international access to information in the country. Thus, reports that have been utilised have to a large extent been produced by local civil society organisations that operate in these conflict areas, such as the Karen Environment and Social Action Network (KESAN), the Karen Human Rights Group (KHRG) and the Karenni Development Research Group. These are local NGOs that up until recently have often been operating from across the Thai border, but worked closely with local communities in order to gather information on the ground. Thus, a certain bias within the information gathering will already have taken place, which will undoubtedly colour my own perception and the way I will write and analyse the subject matter. It is unfortunate that this “one-sidedness” will prevail, however, whilst these groups are very much marked by their own experiences of living as refugees and seeing their people suffer, it is also my belief that they provide invaluable insights into the situation on the ground given their extensive knowledge of the terrain, the language, the culture and the situation at hand and are motivated to tell the story of people who usually do not have a voice. They are thus more equipped with dealing with the situation on the ground and able to perhaps gain more trust and information that way than perhaps an international organisation could. Information on how the government looks at dams was collected through the government’s English newspaper “The New Light of Myanmar”. This helped to understand the tone and the general attitude that prevails within government

officials with regards to dam construction and how they frame it. Moreover, local news articles from the Irrawaddy News, Mizzima News and the Myanmar Times, among others, have been heavily relied upon for information, given their expertise on the subjects and the lack of international reporting on these questions. Whilst one may argue that these newspapers will invariably be shaped by their own biases, given that they tend to be more closely linked to perceptions held by the populace, it may also be argued that that is exactly their strength, making their perspectives an important resource to be utilised. Moreover, due to the emphasis on and importance of the ethnic component in the thesis, I will also draw on local ethnic news agencies, such as Karen News, in order to provide more local perspective. Thus, what has been attempted throughout is a balanced approach by presenting all the different actors involved, however limitations of this were to some degree unavoidable.

### **3.5 Reflections and Limitations**

In retrospect, I do admit that I would have done things very differently. I accept my shortcomings and hope that I have still proven myself worthy of the chef's hat required to analyse the components included in this thesis in-depth. One of my regrets is that I did not go for what I think I always secretly knew I wanted to look at in the first place, namely Myanmar (I initially was considering fieldwork on solar power in Malawi). Valuable time was lost in this regard. Another issue was that I thought it best to go into the field with a "clear mind" and without extensive background reading. Of course I was aware of the current political debates, but given the complexity of the history of all of the actors involved in my research, I was slightly overwhelmed at first and it took quite some time for all of the information to settle in and for me to truly comprehend the situation. My fear is that this has led me to ask incomplete questions during my interviews. My focus was more on socio-economic factors, at the cost of looking at more cultural and spiritual questions with relation to the Salween River and the people who live by it. Moreover, I unfortunately only stayed in Hpa'an for a few days. I was slightly confused about how long I should stay there without overstaying my welcome in a way with my friends from KESAN, however in retro respect, I should have stayed there longer and visited more villages if possible. However, given the fact that I was notified about my trip to Hpa'an the same day that I left, there was little time to for me

to fully think the situation through. Furthermore, staying in any of the villages and conduct participant observation research would have lent itself well and would have provided many interesting insights into how people relate to and utilise the river. However, given government restrictions, this was in no way a viable option. Foreigners are not allowed to stay in villages overnight, and even visiting these villages without government permission, as was the case for me, is technically illegal. Thus, field trips during the day and interview meetings were unfortunately the only option.

One of the limitations already described above is the language barrier. Whilst how the interviewee interprets ones question can always be up for debate, the picture becomes ever more blurry when one does not speak the language and is dependent on others for translation help. Not only that, but being dependent on one particular organisation may bias not only my point of view, but also the respondent`s point of view. Since the information they have gotten has mainly been supplied by members of KESAN, it is hard to perhaps gage where their own opinion on the subject begins and KESAN`s opinion ends.

Moreover, not being able to directly speak with either government officials or ethnic armed group members could be considered to contribute to a certain bias throughout the thesis. Whilst it has been attempted to make up for the lack of actual interviews by gathering information from various news agencies, it might have influenced the analysis and conclusions.

In this chapter I have sought to present the methods utilised in order to collect and analyse my data. Having presented the various sources, as well as the obstacles faced during the data collection process, the next chapter will explore the historic background of Myanmar and its use of natural resources in the past, and how this has shaped the present, as well as how that affects dam development projects.

## 4 Background

Myanmar, long a pariah state among economic powerhouses, is now said to be transforming into “the keystone in a new and potentially immensely profitable trade bridge” (Johnston 2011). Sharing borders with Bangladesh, India, China, Laos, and Thailand, as well as a coastline along the eastern side of the Bay of Bengal (ADB 2012, 1), it provides access to the Indian Ocean to its partners in China, and great trade and energy export potential to India and Thailand. The population is estimated as being 51 million (MIP 2014), more than 70% of which live in rural areas. Agriculture, especially rice production, is the backbone of the economy, employing the majority of the country’s workforce.

Yet, as has been implied, this incredibly resource rich country has suffered much turmoil - turmoil that has yet to abate. Confucius famously said “study the past if you would define the future”. Indeed, the complexities behind the questions concerning dam construction and the strong resistance to such plans that have led to conflict (armed and otherwise) can be found to a great extent in the history and development of the country. As we will come to see, ethnic minorities have been marginalised throughout recent history and deeply impacted by such events as the Second World War and the military dictatorship that has ruled the country until recently. Thus, in order to better discern in what way exactly ethnicity has become so politicized in Myanmar and the consequences of said politicization, we will begin the journey with a trip through history.

### **The importance of history in the case of dams and their potential to aggravate conflict**

This in-depth historical analysis is vital for understanding the current situation; why on-going armed conflict persists in general and how these conflicts are linked to development projects such as dam constructions. Whilst the international community has tended to focus more on the struggle between the military government and the political opposition in the past, the underlying conflicts presented here may well represent a more “fundamental and intractable obstacle to peace, development and democracy” (Kivimäki and Pasch 2009, 7). The link between poverty, marginalization

and lack of ownership and power – among other things - have all played a part in the sustained armed conflict situation that we still see today and has its roots in the complex history of the nation. Whilst society in pre-colonial Myanmar was also fragmented and not without its own set of problems, British colonial rule served to delineate population and regions along ethnic lines whilst exacerbating this divide further by implementing a different ruling policy for the Frontier States and the Centre. Since then, ethnic minority groups have generally been left out of politics, have been marginalized and often suffered under the Tatmadaw's counter-insurgency tactics, which have resulted in forced labour, rape and killing of local populations in rural areas. Ethnic minorities have been specific targets of repression throughout the decades (Doyle and Simpson 2006, 755). Various repressive laws against freedom of speech have effectively meant that anyone protesting either the government itself, or its policies and decisions may risk their life in doing so, leaving local people no space to protest any development projects and the human rights abuses that have resulted from them. Moreover, the negotiations and signing of ceasefire agreements and the protracted conflict situation have severely impacted the local population. This historical background offers important insights needed to help understand the confusing web of problems facing Myanmar today, where they come from and why they have developed in such a manner. The political intricacies at play and lack of peace invariably impact the economy and development of the rural areas.

## **4.1 Myanmar – A History**

The multiple roots of the various conflicts still prevalent in Myanmar today, are located in the complex historical development of the country (Gravers 2007, viii). The language one uses to describe events and the cultural diversity has political weight and meaning (Taylor 2005, 2), as can already be seen with the on-going confusion over the country's name, but also what ethnic groups are called (e.g. Kayin or Karen). Moreover, given Myanmar's strategic location at Asia's crossroads, these ethnic and political crises that have evolved over the course of the last hundred years or so, also has significant international dimensions (Smith 2005, 56). This will also prove to be important when we will later on look at who Myanmar's main investors have been in the past (e.g.

China) and how Myanmar's foreign relations to such powerhouses influences its domestic affairs.

### **Ethnic groups before British rule**

Like most Southeast Asian nations (with the exception of Thailand), Myanmar was part of a colonial power - Great Britain. I believe it would be useful to take a small detour into pre-colonial structures of the society, in order to better ascertain the changes that occurred with colonial rule. Post-colonial rebellions (except for the Communist one), have very much tended to emphasize the ethnic dimension of identity and difference, whereas in pre-colonial times, Gravers asserts that ethnicity had a different place (Gravers 2007, 9). Power was based on alliances, as well as a distinct social hierarchy and exhibited lines of relations and spheres or domains of influence instead of concretely shaped borders (Gravers 2007, 10). Political anxieties rather than ethnic ones dominated conflicts.

At the same time, despite war and strife, cultural and ethnic interchange has been the norm throughout the centuries. Historically, many local communities and societies in Myanmar have actually been multi-ethnic (Smith 1994, 22). This serves to indicate an important precedent for inter-ethnic tolerance and understanding in the country. However, the question of ethnicity in Myanmar would be deeply impacted by British rule, with its repercussions lasting until today.

### **British Colonial Rule and the lasting impact on ethnic relations**

"It is no exaggeration to say that the British made modern Myanmar" (Taylor 2005, 4). They established the borders with its neighbouring countries, defined much of the administrative structures of the state, and essentially divided the country into two different administrative parts, which resulted in lasting economic and developmental disparities. And whilst the British did not create Myanmar's ethnic minorities per se, colonial rule did serve to exacerbate tensions between them (Charney 2009, 202), a fact often cited by the military as the root cause of all problems in Myanmar.

The British annexed Myanmar fully<sup>12</sup> in 1885. The country was divided into two different administrative systems, that of Ministerial Burma, which mainly represented the lowland region predominantly inhabited by the Burmans, and that of the so-called Frontier Areas, which were the border areas, mainly inhabited by ethnic minority groups. Whilst Ministerial Burma was allowed a limited degree of parliamentary home rule, the Frontier Areas were generally left under the control of local chieftains or headmen (Smith 2005, 63).

Ethnic differences were thus incorporated into the representative structures of the colonial state (Taylor 2005, 12). What is more, such notions as ‘native states’ and ‘frontier areas’ were equated with ideas of backwardness and primitiveness. This is important to note, because these notions have persisted and have become deeply ingrained into the present “cognition and modelling of the political landscape” in Myanmar (Gravers 2007, 17).

Beyond that, the British impacted the society by, in a sense, constructing ethnic identities. Thus, Jorgensen postulates that

until the 19th century, the word ‘Karen’ was never used by the groups which constitute the category Karen today, until Christian missionaries and British colonial officers gave the term respectability. Since then it has gained itself a special reality as a term accepted by most educated Karens, Thai and Burmese (Jorgensen quoted in Buadaeng 2007, 76).

However, in doing so, the British invariably aided in the blooming of ethnic consciousness as a result of this designation (Buadaeng 2007, 76), something which has had a big impact to this day.

### **The Road to Independence and its impact on minorities**

The Second World War did little to alleviate ethnic tensions in Myanmar. Few areas of Myanmar remained unscathed during the war, as two colonial powers were fighting to gain hold over the territory, destroying any infrastructure and land in the process (Steinberg 2010, 36). Whilst the Burmans remained allied to the Japanese<sup>13</sup>, some of the

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<sup>12</sup> I say “fully” because the annexation of the Kingdom of Burma was done in 3 wars

<sup>13</sup> Until early 1945



minority ethnic groups, especially the Karen and the Kachin, sided with the British, exacerbating ethnic tensions as both sides committed atrocities against each other. A Karen National Association (KNA) leader has said in this regard: “after all this (the murders and slaughters), how could anyone seriously expect us to trust any Burman government in Rangoon?” (Smith 1991, 62). The markedly different experiences by the various peoples of Myanmar during the war would have severe consequences for the post-Independence period. Not only did tensions exacerbate between various groups given that the war was fought along racial lines, but each ethnic group also gained first-hand experience in leading their own people (Smith 1991, 64).

### **Post-independence: Insurgencies and military rule**

Whilst Myanmar was a well-regarded and respected part of the international community during its parliamentary democracy days, it was confronted with internal insurgencies almost straight away, resulting in an almost complete collapse of the agreement with the ethnic groups, as “the logic of a unified state and economy came up against the realities of a highly divided society with a variety of unmet and often inchoate ethnically perceived demands and expectations” (Taylor 2005, 9).

The Karen National Union (KNU) began its fight almost immediately, demanding more autonomy and equal rights within the Union. Losing control over vast parts of the country, the government began to heavily rely on the Tatmadaw to retain power and control (Taylor 2005, 15). The prohibition of learning ethnic minority languages in schools, among other things, was interpreted as a direct attack on the values and cultures of the ethnic minorities, and added fuel to the fire of ethnic separatist sentiments (Taylor 2005, 18). In turn, ethnic aspirations and expression of ethnic minority views was equated with the divisions of colonial rule by the Tatmadaw in particular (Smith 2005, 45).

Disagreeing with the government’s attempt at cooperating with ethnic minority groups, the military staged a coup and set up a one-party state instead. The army justified its power-grabbing in the name of national unity. Economically, Ne Win’s “Burmese Way

to Socialism” ended up bankrupting the nation<sup>14</sup> and Asia’s once largest rice exporter was faced with food deficits. The continuing neglect of health services, economic and developmental programmes in minority areas by the government only served to enhance their sense of marginalization (Smith 2005, 68). In response to the inability of the military to curtail insurgencies, the Tatmadaw implemented their “Four Cuts” counter-insurgency strategy, which resulted in countless human rights abuses and forced population relocation, among other things. The strategy itself had one goal: to cut off the four main links (food, finance, intelligence, and recruits) between civilians and armed opposition forces through non-stop military harassment (Smith 1994, 46). This meant, in effect, that “areas occupied by resistance groups were termed “black areas,” which effectively made them free fire zones where soldiers were permitted to kill and abuse with impunity” (Apple and Martin 2003, 38). Even today areas within Karen state are designated “black areas”.

Ne Win remained in power for 26 years. During that time, Myanmar became one of the most isolated and hermetically sealed off countries in the world (Smith 1991, 1) with a booming black market economy to compensate for the economic and developmental failures of Ne Win’s policies and buoying corruption. The old government was replaced by the new State Law and Restoration Council (SLORC), which toughened its stance and implemented tough new martial law decrees (Smith 1994, 70) in the name of the restoration of “law and order and peace and tranquillity” (Smith 1991, 15).

In 1997, “when order (if not law) had been restored” (Steinberg 2010, 83), the SLORC decided to re-name itself the State Peace and Development Council (SPDC)<sup>15</sup>. What mainly characterized the difference between these two phases of military rule is the fact that the SLORC time did not face Western sanctions yet, encountered numerous ethnic insurgencies, problems with neighbours and a continuous influence of leaders from the Ne Win period. The SPDC period was characterized more by heavy Western sanctions, the emergence of ceasefire agreements with many of the ethnic insurgent groups, membership in ASEAN and “the elimination of the Ne Win “old guard”” (Charney 2009, 179).

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<sup>14</sup> By the time Ne Win abdicated, Myanmar was on the UN’s “Least Developed Countries” Index

<sup>15</sup> Reasons for the change are speculated, but it would seem to be a mix of needing a better reputation abroad in the wake of Myanmar’s application for ASEAN (The Association of Southeast Asian Nations) membership in 1997 and providing it the image of ‘fighting corruption’ (Charney 2009, 179)

## **The 2008 Constitution**

The new Constitution agreed upon in 2008 did not serve to address the main grievances of the armed ethnic opposition groups, but did stipulate a new parliament be instated, a new quasi-civilian government come to power and political prisoners be freed (Singh 2013, 101). Whilst the SPDC ceased to exist as of March 2011, instead being replaced by a new relatively democratic government, headed by Thein Sein, the Constitution still provides the military with “the ultimate power of exercising emergency authority” if necessary, as well as providing the Tatmadaw with a quarter of the seats in the parliament (Singh 2013, 102). The Constitution also provides for three newly elected legislatures to be formed: the upper house (Amyotha Hluttaw) and lower house (Pyithu Hluttaw) of the national parliament, with 14 state or region assemblies (Buchanan, Kramer, and Woods 2013, 7).

What is more, the government has attempted to build some bridges again by reaching out to Aung San Suu Kyi and the NLD in order to work together. However, ethnic minorities still suffer from continued marginalisation, as even today ethnic languages are rarely taught in school, while the ethnic areas have so far received very little government support in developing their economies or for implementing infrastructure projects such as the building of roads.

## **4.2 The Peace Process and ethnic armed groups**

Since the new government came to power in early 2011, Myanmar’s peace process<sup>16</sup> has become a pivotal element of their internal policy (Min Zaw Oo 2014, 7). However, we must distinguish between the ceasefires and the peace process itself. The ceasefires do not in themselves represent the peace process, although they are a pivotal first step towards it. Yet ceasefires in and of themselves only mean a cessation of armed conflict. However, ethnic armed groups have often wanted to approach both issues together, given that their armed power is their biggest bargaining chip and one not easily laid down, whereas the government insists on ceasefires before peace talks.

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<sup>16</sup> For a detailed figure depicting the various actors involved in this process, please refer to Appendix 4.

## **Ethnic armed groups and their main grievances**

The main grievance ethnic minority groups will share is

their lack of influence in the political decision-making processes; the absence of economic and social development in their areas; and what they see as a Burmanisation policy of the military government that translates into repression of their cultural rights and religious freedom (Kramer 2009, 16).

In response to the decades, or even centuries of neglect from the colonial power and the successive governments, ethnic armed groups have set up their own health, agriculture, justice and other departments within their territories, thus effectively running a state within a state (Kramer 2009, 18). In this regard, they also expect and rely on levies being paid by the local population in forms of direct taxes, recruits porters and food (Kramer 2009, 19).

Whilst ethnic ceasefire groups<sup>17</sup> have mostly rejected the concept of de-facto separatism from Myanmar, they all generally want to see it become a federal state and see their ethnic armies be transformed into federal armies. This remains one of the most divisive issues within the peace process. However, what has made a significant impact in the negotiations for the ceasefire and peace agreements is the fact that in the last years the ethnic ceasefire groups have come together to establish the Nationwide Ceasefire Coordination Team (NCCT), in order to negotiate with one united voice with the government.

## **The specific case of the Karen National Union**

*“The Karen are much more than a national minority. We are a nation”  
KNU publication quoted in (Smith 2005, 60)*

The KNU has been singled out as an ethnic armed group here, due to not only it “representing” the Karen ethnic group (to an extent), but also due to the fact that it only entered in a ceasefire with the government quite recently (2012) and the fact that the dam used as the main case study lies within KNU territory.

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<sup>17</sup> Those ethnic armed groups that have already signed ceasefire agreements with the government. So far 2 out of 16 have yet to do so.

The modern Karen nationalist movement can be traced back to the late 19<sup>th</sup> century through the formation of the Karen National Association (KNA) in 1881, the forerunner of today's Karen National Union (KNU), which aimed to promote Karen identity, education and leadership (Smith 1991, 44). The KNU was established in 1947 and led by Christian Karen, in order to represent Karen interests. It consists of both a civilian branch, responsible for humanitarian and social welfare within its sphere of influence, as well as an armed branch – the Karen National Liberation Army (KNLA) - which continues to fight for freedom (Hayami and Darlington 2000, 141). Failing to reach an agreement with the new government, it decided to go underground in 1949 and has been in active revolt ever since and up until the recent ceasefire agreement of 2012. The KNU has proclaimed that it follows the policy of national democracy, and 'recognizes and encourages private ownership and welcomes foreign investment. All the people (...) shall be given democratic rights, politically, economically, socially and culturally' (KNU 2006, 16). Among the Karen civilian population, a range of different points of view concerning the KNU invariably exists, however, many do express sympathy for the KNU and see it as representing 'our people' (South 2011, 40).

In the past, the KNU virtually operated as a de facto government, controlling a large territory across Karen State and neighbouring areas. However, by the early 1990s its power began to dwindle and it had lost a great deal of its 'liberated zones'. Moreover, growing Buddhist Karen concerns within the KNU over the Christian dominance in leadership (among other grievances) resulted in a large fraction of the organization leaving and forming the Democratic Karen Buddhist Army (DKBA) in 1994. The formation of the DKBA, as well as its prompt ceasefire agreement with the regime, represented hard blows for the KNU (Gravers 2014b, 188).

The recent ceasefire agreement has not meant a complete cessation in conflict, especially in south-eastern Myanmar. The KNU has retained its weapons. Moreover, the Tatmadaw has yet to withdraw its troops from areas under ethnic armed group territories and indeed has been said to have increased its presence in such areas during ceasefire talks (Schroeder and U 2014, 207). Thus, whilst fighting has significantly decreased, Karen State still experiences armed conflict, especially near areas where large infrastructure projects are meant to be built and the local population is still vulnerable to conflict-related human rights abuses (Schroeder and U 2014, 212).

## **Ethnic armed groups operating in Karen State**

As we have seen, the conflict between the KNU and the Tatmadaw has a long history in general and in Karen State in particular. However, they are not the only military actors present within the State. In fact, the region has become more and more militarized in the last two decades due to the presence of not only the Tatmadaw, but also five non-state armed groups, namely the KNU, the Democratic Karen Buddhist Army (DKBA), the Karen Peace Force (KPF), the New Mon State Party (NMSP) and more recently the Border Guard Force (BGF) groups (CPCS 2014, 20). Whilst the KNU is by far the most dominant player and holds significant areas of control, the DKBA and KPF, both splinter groups of the KNU, are also active and control some territory in the State (CPCS 2014, 20). The KPF was created in 1997, but decided to assimilate into the BGF later on, a “state security force affiliated with the DKBA” (CPCS 2014, 20). The NMSP has reached an accord with the KNU to allow it to operate in the border region to Mon State, where the majority of the local population stems from the Mon ethnic group.

## **Ceasefires**

Whilst the ceasefires the SLORC signed in the 1990s did little more than “freeze” – rather than resolve – conflicts, these truces did allow for civil society to emerge and marked a stark decrease in war-related deaths (South 2012). The cease-fires however, are merely military truces, and do not include political agreements (Kramer 2009, 13). None of the agreements have been made public and all the ceasefires have been verbal agreements, not a written and signed document (Steinberg 2010, 111). Furthermore, the relationship between the ceasefire groups and the government remain quite tense, with fighting still occurring between ceasefire groups and the Tatmadaw on multiple occasions.

As part of the ceasefire agreements, ethnic armed groups are to be transformed into Border Guard Forces (BGFs) under direct control of the Tatmadaw (South 2011, 4). They were supposed to be a form of an armed unit that was ‘neither militia, nor part of the regular army’ (Min Zaw Oo 2014, 11) but were to be placed under the overarching authority of the Myanmar National Army. This in turn has caused factions that disagree with this to split from ceasefire groups and continue their own agenda in smaller sizes, representing battalions rather than an entire army, as has been the case with the DKBA

operating in Karen State, which has officially been transformed into BGFs, but with for example the DKBA-5 (DKBA Brigade 5) splitting and continuing its insurgency, now often aligning with the KNU again. This has had implications for the fighting around the Hat Gyi dam site area, since it is KNU (mostly) but also DKBA-5 territory.

#### **4.2.1 A Historical Perspective on the Use of Natural Resources in Myanmar**

Having looked at the historical political processes that have explained the current ethno-political situation, a look at the utilization of natural resources further helps setting the scene for why conflict is directly linked to natural resource management and hydropower in particular.

After Myanmar became part of the British Empire, the exploitation of natural resources “was largely left to the private sector, which meant foreign companies mainly from Britain” (Kyi et al. 2000, 87). However, laws and regulations for the management of natural resources were set up by the British, most importantly on the management of forests (especially teak trees) (Kyi et al. 2000, 87). In reference to Karen State, the area forming the watershed of the Salween River was incredibly fertile, exemplifying vast areas of teak forest, and was otherwise also known as the ‘Golden Teak’ forest zone (KRW 2004, 19). During colonial times, this was the main resource exported from Myanmar, and the transport of logs depended highly on the Salween River (KRW 2004, 19). The other industry promoted by the British concerning natural resources was the establishment of the petroleum industry. Oil, timber and gems were the natural resources that drew British interests to Myanmar in the first place, and this is where the focus of extraction laid.

After independence, the democratic government tended to follow the policies of the previous colonial rule when it came to resource management and conservation, diverging only in one (yet significant) aspect: that exploitation of most resources was now run by the state alone (Kyi et al. 2000, 88), meaning that all proceedings went directly and solely to the state. This was done in order to help finance the development measures that were being set up.

The use of obsolete technologies meant that Myanmar lost its “comparative advantage in producing value-added or manufactured exports”, leading to an over-reliance on natural-resource-based commodities for export (Kyi et al. 2000, 89). The prohibition of oil imports<sup>18</sup> only served to exacerbate the already extensive shortage of energy within Myanmar (Kyi et al. 2000, 89) which has led to the country’s dependence on biomass as a main source of energy and leaving the majority of the population literally in the dark.

To make things more complicated, certain areas during this time were not in fact administered by the government, but rather by the ethnic armed groups. Thus, again zooming in to Karen State and the KNU, it is interesting to see that during the “first three decades of the Karen resistance, beginning in 1949, the area was free from commercial logging” (KRW 2004, 20) due to the KNU not wanting to risk exploiting the natural resources too much. However, logging resumed once more in the area around 1983 when the KNU began to sell logging concessions to Thai companies. It was the KNU’s Forestry Department’s role to make laws pertaining to the maintenance of the environment according to the wishes of the people residing in their area of control. Thus, regulations covering such policies as rotational slash and burn farming, forest fire control, reforestation or replanting of teak forests, and the forbidding of hunting of rare wildlife were drawn up (KRW 2004, 20).

In comparison to the above mentioned closed economy Ne Win practiced, the SLORC’s “open door” economic policy introduced a sharp turn for Myanmar’s economy, with the government emphasizing the importance of foreign investment and encouraging maximum freedom to market forces (Kyi et al. 2000, 89). Given the country’s lack of investment in its own labour force, education facilities and infrastructure development (i.e. roads), foreign investment has mainly focused on natural resource extraction (Kyi et al. 2000, 89). Moreover, the SLORC left foreign investors with a free hand in how to conduct their business. This has remained the dominating economic course ever since. Indeed, ever since the SLORC took power, a worrying trend of favouring business over issues of human rights or the environment has characterized the government’s attitude towards natural resources and the economy. The consequences of both the “Burmese Way to Socialism”, as well as the “open door policy” for ethnic minorities have been

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<sup>18</sup> Due to a concern over the limited foreign exchange reserves



stark. Ethnic minority leaders have claimed that since 1988, “land traditionally inhabited by minority peoples is being seized or sold from under their feet by the SLORC, using emergency military powers. This has been most apparent in ethnic borderland areas” (Smith 1991, 97). Moreover, due to the regimes’ trade agreements (amongst other things on infrastructure and dam projects) with neighbouring countries such as China and Thailand, minority peoples have systematically been “evicted from their lands or denied access to their own resources by the collusion of government officials or businessmen wishing to appropriate territories and revenues for themselves” (Smith 1991, 98). Whilst this can be considered in direct violation of ILO Convention Nr. 169 which stipulates in Article 15.1 on the rights of peoples over the natural resources on their lands that “...these rights include the right of these peoples to participate in the use, management, and conservation of these resources” (ILO 1989), Myanmar has yet to ratify the Convention.

However, control over the economy by the ruling Tatmadaw, as has been the case so far (and arguably still is considering the prevalence of military-owned companies (Ytzen and Gravers 2014, 67)) also served as a way to ensure the Tatmadaw’s domination and “guarantee the continued unity and efficacy of the state” (Steinberg 2005, 3). Thus, the military has come to view the economy as directly interlinked with their power.

Worries and fears about the government’s hydropower plans were already being expressed in the early 1990s, as documented in Smith’s book (Smith 1991, 100). These worries have only persisted and become heightened. The signing of various deals with foreign firms, especially with and from Thailand, concerning teak, fisheries and agriculture, resulted in devastating consequences for the environment (Steinberg 2005, 9). The signing of the ceasefires during this decade helped alleviate pressure off the military government as well as opening up large areas of the country that were inaccessible before, resulting in an augmenting of economic activities such as mining (Steinberg 2005, 9). On the flipside however, such infrastructure projects were also accompanied by forced relocation as well as forced labour among other things (Kyi et al. 2000, 173). Particularly, Refugees International has reported that the SPDC attacked villages “and committed a myriad human rights abuses as part of its forced relocation program necessary for the construction of infrastructure projects, including railways,

pipelines, and dams” (Apple and Martin 2003, 44), the revenue of which go back to the SPDC.

This thorough historic description and analysis is an important component for understanding the current issues involved in the Hat Gyi dam debate, such as the deep mistrust towards the central government and the decades of neglect of the ethnic minority areas, to name a few. Having seen the history behind the political and economic developments in Myanmar, we now turn to look at the issues behind hydropower development, and the introduction of the Hat Gyi dam itself as a case study.

## 5 Energy, Development and Dams

Myanmar is not only at a crossroads concerning its internal politics and democratization process, but also considering its economic growth and development and how this can contribute to poverty alleviation in the country. Whilst the McKinsey Group Report estimates that the economy will grow at a pace of 8% per year (Chhor et al. 2013), per capita income of about US\$ 876 is still among the lowest of the East Asian Economies (Perera 2013). Moreover, the regions suffering most and who have experienced decades of neglect tend to be the border State areas. Rapid economic growth seems to be an important component in order to alleviate poverty and improve living standards (ADB 2014, 8). In that regard, electricity is a fundamental basis in order to achieve economic and developmental growth (Dapice 2012, 6).

### The Energy-Development Nexus

Access to energy services is now generally recognized internationally as an important component of development (Bradbrook 2005, 2). The link between poverty and the lack of access to modern energy services has only been recognized relatively recently<sup>19</sup> (Bradbrook 2005, 1) with such initiatives as the UN's "Sustainable Energy for All". That same initiative states that "sustainable development is not possible without sustainable energy. Access to modern energy services is fundamental to human development and an investment in our collective future" (SE4ALL 2011). At the same time, over 2.5 billion people rely on traditional biomass, such as fuel wood, and animal dung, to meet their energy needs for cooking, a number estimated to rise by 2030 (Goldemberg 2012, 74).

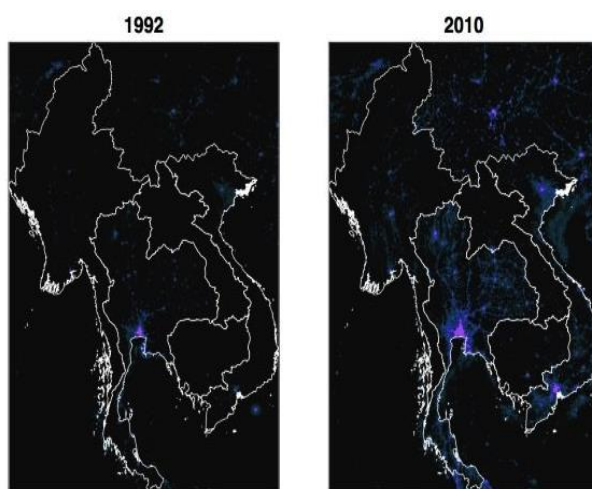
Whilst an increase in access to such energy services can contribute to better health care, and aid in eliminating extreme hunger by increasing food productivity or reducing post-harvest losses (Goldemberg 2012, 74), "most current energy generation and use are accompanied by environmental impacts at local, regional and global levels" (UNDP 2000, 3), which leaves us in a bit of a conundrum. Energy is necessary for everything from heating homes to delivering public services, to developing industries and

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<sup>19</sup> Whilst the importance of universal energy services provision was recognized by the Brundtland Report in 1986, the issue was brought on to the central stage of discussion in 2000 (Bradbrook 2005, 3)

economies. The development of the rich (OECD) countries would have been unimaginable without the exploitation and consumption of energy to industrialize their economies (Wilhite 2012, 81). So can we really expect or demand country's in that stage of development to not utilise energy in the same manner in order to develop their economies?

### Myanmar's Electrification Rate



**Figure 1 - Myanmar by night. Source:(The Economist 2012)**

Presently, Myanmar has an electrification rate of approximately 28% according to government statistics - a rate that drops significantly in rural areas (Castalia 2014, 1) as exemplified in Figure 1, where even in 2010 one can hardly see any sign of electrification. Even Yangon, Myanmar's largest city and economic hub, experiences many power outages, especially during the dry season (ADB 2014, 142). One of

the main issues in the past has been the fact that the military regime had prioritized the export of energy rather than focusing on providing electricity for its people. As such, the new government is now faced with the herculean task of both developing an energy supply system that will drastically expand stable electrification nation-wide, but also to domestic industries, especially in light of the new influx of investment in the country. This is especially important, not only because an increase in electrification rates could spur growth of “micro-, small, and medium-sized enterprises or home businesses, especially in rural areas” (ADB 2014, 143), but also because Myanmar's dependence on biomass – specifically fuel wood – for cooking and heating invariably will impact the already shrinking forest coverage of the country (Bodenbender, Messinger, and Ritter 2012, 41), as well as increased health risks due to indoor smoke-inhalation. In order to

achieve full electrification by 2030, the government will place a strong emphasis on hydropower generation in its National Electrification Plan (NEP)<sup>20</sup>.

Having established Myanmar's low electrification rate and the need for hydropower development, an overview of what constitutes a large dam, as well as the problems and benefits associated with such dams will be provided.

## 5.1 Hydropower Dams: An Overview

Before looking at the role of hydropower dams in Myanmar in particular, I believe it is important to first look at what exactly qualifies as a “large dam”, and what the debate surrounding hydropower dams currently entails. In the past decades, global electricity production has more than doubled, providing a stark incentive for the building of large dams in many countries in order to provide electricity (WCD 2000, 14). At the same time, the debate surrounding hydropower dams has grown exponentially to go beyond just the ecological impacts that are associated with dams and include such issues as the “geographical distribution of electrical power and water resources, the inclusion of relevant stakeholders, the relocation and resettlement of displaced inhabitants, and the disruption of social, cultural, and economic life in communities affected by dam construction” (Tilt, Braun, and He 2009, 249). Hydropower is used in over 160 countries, and about one third of these utilize it for 90% of their total electricity supply. Moreover, according to the World Energy Council, it represents “the most flexible and consistent of the renewable energy resources” (World Energy Council 2011).

But what exactly is hydropower, how is it generated and what do we mean when we talk about “large dams”? Hydropower in and of itself is considered “green” in that the “electric energy production does not generate any emissions of greenhouse gases” (Olsson 2012, 21). Moreover, it is classified as a renewable energy source, that is to say that it is a source that is “naturally replenished at the rate of extraction” (Goldemberg 2012, 29). The theoretical potential of renewable energy is enormous. However the practical and technical implementation potential of renewables is considerably smaller (yet still represents a considerable amount) (Goldemberg 2012, 55). On the flipside,

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<sup>20</sup> For more information please refer to Appendix 5

hydropower cannot seriously be considered “clean” or “green” according to McCully, who goes on to state that not only can hydropower seriously “contaminate river water”, it also “emits greenhouse gases due to the rotting of submerged vegetation and soils” (McCully 1996, 140). As we can see, there is already quite a debate to be had over the pros and cons of building and justifying the construction of such large dams. McCully further claims that hydropower cannot be considered renewable energy, given that the “number of dam sites is finite, and because dams age and their reservoirs fill with sediments” (McCully 1996, 140).

Dams can come in different sizes and serve various purposes, such as electricity generation, flood control and irrigation (Magee 2015, 217). According to the International Commission on Large Dams (ICOLD), a “large dam” is any dam that is 15 meters or higher, and it estimates that around 40.000 such large dams permeate the world’s rivers (Goldemberg 2012, 48).

Dams have been in use in one form or another for centuries already according to archaeological finds, the earliest of which are said to have been from 3000BC (McCully 1996, 13). But from the 1930s to the 1970s, the construction of large dams became “synonymous with development and economic progress”, and were revered as symbols of modernization (Goldemberg 2012, 49), which explains their accelerated expansion during this period in time. What type of dam is built is very much dependent on the specific local conditions, however, no matter where one choses to place oneself within this debate, dams by design are disruptive given that they are designed to alter the natural flow regime of rivers (Magee 2015, 216). With the electricity demands of not only Myanmar itself, but the entire Asian Continent, including China, rising exponentially, hydropower dams are making a “come-back” in the region. Let us then move on to discuss some of the positive and negative characteristics and consequences dams can exhibit.

### **Dams as the solution to climate change**

In the past, hydropower dams have been promoted as one of the vital steps towards industrialisation that would “elevate impoverished nations (...) toward First World status” (Fletcher 2010, 2). Whilst they garnered a sizeable amount of criticism over the last few decades in response to the huge amount of people who have been displaced due

to dam construction, their failure to deliver predicted benefits as well as the ecological impacts associated with dam projects such as a reduction of biodiversity and reduced water quality to name a few (Fletcher 2010, 3), they have started to make a come-back once more. With the emergence of the climate change debate and the growing concern attached to it especially during the last decade, hydropower dams have once again entered the stage and are being hailed by some as “the answer to global warming” (McCully quoted in Fletcher 2010, 4). This has resulted in hydropower dams being viewed as an important way to mitigate climate change and has spurred large investment in the industry. In 2010, hydro dams represented the “single largest project type in the clean development mechanism (CDM) portfolio” of the Kyoto Protocol (Mäkinen and Khan 2010, 99). This is important to note, because this major new source of funding, curtesy of the CDM, is one of the main factors that has spurred the new growth of hydropower dam construction worldwide. Many middle-income countries, such as China, Thailand, India and Brazil are driving the dam construction market, in part due to hopes that global warming will provide enough incentive to catapult hydropower into climate friendly technology territory, thus granting them carbon credits within the international emissions trading mechanisms under the Kyoto Protocol (McCully 1996, xvii) (Aviva and Lanza 2010).

This shift that has occurred – placing hydropower dams within the climate change mitigation sphere – has had huge repercussions for the debate surrounding large dams by making it a part of a moral discourse, e.g. hydropower is a necessity in order to reduce greenhouse gas emissions. As Fletcher states, “whereas previously hydro dams were cast by their opponents as an immoral blight on the social and environmental landscape (e.g., McCully 2001), in contemporary climate discourse dams are recast as the moral alternative to fossil fuel-based electricity production” (2010, 5). However, as we will see in the section below, hydropower’s reputation as “clean energy” might not be as solid and clear-cut as promulgated by its proponents.

### **5.1.1 Benefits and Problems with regards to Dams**

Hydropower generation is an attractive form of electricity generation, given its ability to store and save potential energy for long stretches at a time (Olsson 2012, 121), a function that is particularly practical in dry climate areas. Moreover, it is often hailed as

a relatively “low-cost” source of renewable energy, as once constructed it is deemed to have low operating costs and a long life (WCD 2000, 14). It can also represent energy security<sup>21</sup> for some countries who are not endowed with fossil fuels and would thus otherwise have to import fuel to sustain power generation (WCD 2000, 14). Another argument often used in favour of dams is that they serve as flood-protection. With millions of people affected by floods and their consequences, one can understand this line of reasoning. As often emphasised by people I interviewed in Karen State, floods may also have beneficial functions, such as land fertilization. Other positive effects often attributed to dam construction is employment generation, especially given that a large number of unskilled workers are needed to help build the dam (WCD 2000, 99). However, this does not represent a long-term employment solution, given that once the dam is built, that same large amount of unskilled workers will find itself unemployed and without a livelihood. The dam’s most obvious positive attribute is that it produces electricity, a sizeable percentage of which could potentially go into powering industries in the respective regions, something we have seen could benefit those regions in Myanmar where hydropower potential is greatest, given that those also represent some of the poorest regions in the country. Moreover, “in countries with low levels of energy services, even small energy inputs bring significant welfare improvements” (WCD 2000, 101). Hydropower development may also lead to an increase the diversification of energy sources, especially considering the huge dependence on fuelwood and its adverse effects in the case of Myanmar, whilst also enhancing energy self-sufficiency and energy security (Kattelus 2009, 66).

However, hydropower generation comes with its own unique set of problems. Some of dam construction’s drawbacks include loss of soil fertility, an increase in flood risks especially when dams fail, as has been the case for at least 322 dams during the last 50 years in China (Olsson 2012, 126), and permanently changing the biodiversity of an area either due to consequences for fishes in the river, or other wildlife affected by the dam construction. The impact on the fishing industry has been reported in several cases and carries a very significant impact for river communities, as are the ones that I visited

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<sup>21</sup> Energy security is defined by the IEA as “the uninterrupted availability of energy sources at an affordable price”. Moreover, “lack of energy security is thus linked to the negative economic and social impacts of either physical unavailability of energy, or prices that are not competitive or are overly volatile” (IEA 2015)



in Karen State where the majority of people rely on fishing and agriculture for sustenance. Due to the fact that ecosystem impacts are numerous and complex, it is extremely difficult to predict with any amount of certainty what the exact changes resulting from dam construction will be (WCD 2000, 73).

Alterations in things such as “temperature, erosion patterns, dissolved gases and other factors” may lead to changes in the aquatic and terrestrial ecosystems, which also carry implications for the social systems that depend on those same ecosystems (Magee 2015, 216). Reservoir dams may also result in salinization<sup>22</sup>, which occurs when, due to evaporative losses, the concentration of natural salts in the remaining water is altered, a problem especially prevalent in warm regions, such as South East Asia (Magee 2015, 221). Given the country’s stark dependence on agriculture, salinization can have major consequences when reservoir water is utilized for irrigation purposes. Moreover, reservoirs are greenhouse gas emitters due to “rotting vegetation and carbon inflows from the catchment” and may in fact account for between “1% and 28% of the total global warming potential of GHG emissions” (WCD 2000, 75).

A huge impact of dams - whether considered negative or positive - is that of resettlement. Reservoirs and dam construction sites may cover vast areas of land, flooding entire villages including archaeological or spiritually important sites, as well as important natural areas and fertile agricultural land (Olsson 2012, 128). The stress and trauma of involuntary resettlement can be grave, with Oliver-Smith naming it a “totalizing experience” since it is “one of the most acute expressions of powerlessness because it constitutes a loss of control over one’s physical space” (quoted in Scudder 2006, 22). What is more, it not only impacts people’s economic, social, and cultural resources all at once, it also “takes away political power, most dramatically the power to make a decision about where and how to live” (Koenig quoted in Scudder 2006, 23). Moreover, whilst dam builders and proponents may emphasize the positive outcomes of dam construction, Scudder undertook an in-depth analysis of different dams worldwide, concluding that only in 7% of the cases did people who were resettled see an improvement in their living standards in comparison to a worsening of living standards reported in 82% of the cases (Scudder and Gay 2006, 61). Some of the most acute

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<sup>22</sup> The process by which water-soluble salts accumulate in the soil. Salinization is considered problematic because excess salts hinder the growth of crops.

problems registered were issues pertaining to landlessness (as was the case 80% of the time) as well as joblessness (also 80% of the cases), stating that in fact only very few project-specific jobs are generally made available to resettlers (Scudder and Gay 2006, 71). The dam's impact on the riverine ecosystems, both upstream and downstream, also affects the resources at hand for land-use. This can prove especially problematic for river communities whose entire livelihood is predicated on the river, resulting in a

loss of access to traditional means of livelihood, including agricultural production, fishing, livestock grazing, fuelwood gathering and collection of forest products, to name a few. Not only does this disrupt local economies, it effectively displaces people (...) (WCD 2000, 103).

When talking about resettlement and displacement, the numbers that are dam-related are quite staggering and range from 40 to 80 million people worldwide. In China alone, dams are said to have displaced over 10.2 million people (WCD 2000, 104). Yet studies by the World Commission on dams shows that

Communities situated downstream from the dam, those without land or legal title, indigenous people and those affected by project infrastructure (and not just the reservoir) were often not considered as affected people at the time of design. Among those assessed, compensation has usually gone only to those in possession of legal titles, leaving out a large number of people – often the poorest – who depend on common resources such as forests and grazing grounds for subsistence (WCD 2000, 105).

Indigenous peoples and ethnic minorities especially suffer disproportionately in such cases due to issues pertaining to citizenship, tenancy and land tenure papers (WCD 2000, 105), even though they make up a large number of those who lose their livelihoods to dams (McCully 1996, 70).

Part of the consequences of dam construction can also be augmented health risks due to water-borne diseases such as bilharzia or schistosomiasis, as well as an increase in malaria and dengue fever instances. This problem can be particularly compelling at the Myanmar-Thai border, given that in recent years it has developed into a multi-drug-resistant malaria area, an issue that has even been dubbed one of the world's new potential big health crisis (Zweynert 2014). Increased health problems such as sexually transmitted diseases and HIV/AIDS may also come as a consequence of loss of social cohesion due to the large influx of outsiders and strangers (WCD 2000, 100) either

within the new resettlement site or as a consequence of many workers from different areas coming to build the dam.

## 5.2 Dams on the Salween River



**Picture 1 - The Salween River: Thailand to the left and Myanmar on the right side. Source: Author**

The Salween River<sup>23</sup> is one of the Asia's last largely free-flowing rivers and is shared by China, Thailand, and Myanmar. The river originates on the Tibetan Plateau and flows through China's Yunnan Province, before becoming the Salween in Myanmar and Thailand and emptying into the Andaman Sea (International Rivers 2014b). It is a transboundary basin with a total area of 320 000 km<sup>2</sup>, which is distributed between China (53%), Myanmar (42%) and Thailand (5%) (FAO 2011) and is the second longest river in Southeast Asia. Within Myanmar, the river is situated in the eastern part of the country and forms the border between Thailand and Myanmar for 110 km, flowing through Shan State, Kayah State<sup>24</sup>, Kayin/Karen State<sup>25</sup>, and Mon State - all of

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<sup>23</sup> The river is known under various names in different countries: Nu River in China; Thanlwin in Myanmar and the Salween River internationally. Unless otherwise specified, the term Salween River will be utilized throughout the thesis.

<sup>24</sup> Formerly known as Karenni State, and still referred as such by many Burmese

<sup>25</sup> This state is officially designated as Kayin State, re-named by the military government in an attempt to 'Burmesify' many names believed to be relics of the British colonial times. However, it will be referred to as Karen State throughout the thesis, given that the majority of literature reviewed has utilized this name, and the fact that all my informants called it thusly.

which are ethnic minority states<sup>26</sup>. The region's impressive landscape and unique biodiversity has led to the Upper Salween being proclaimed a UNESCO World Heritage Site in 2003 (International Rivers 2012a). The river is home to at least 140 species of fish, of which one-third are endemic (Salween Watch 2011). More than 10 million people, representing at least 13 different ethnic groups, depend on the Salween river basin for their livelihoods (FAO 2011). Moreover, the area around the Salween River basin has been identified as one of the world's most fertile areas for teak by ecologists (Salween Watch 2004, 14).

The Salween's high potential for hydropower generation stems from its topography, which provides an ideal physical setting for dam construction due to the height of the surrounding gorges (Osborne 2007, 4). Hydropower developers and dam builders from China, Thailand, Japan, along with international institutions such as the World Bank and the ADB, have long been interested in the prospects of projects along the Salween River basin (Salween Watch 2004, 4). However, the remoteness and lack of basic infrastructure throughout much of the area have made such developments technically and economically infeasible until recently (Magee and Kelley 2009, 115). But the recent economic growth and acute electricity shortages in the region have made planning such dam projects more of a priority. In Myanmar, six dams have already been approved by the Deputy Minister of Electric Power. All of these six dams are located in active civil war zones (Salween Watch 2013). This brings to the forefront the debate whether and to what degree it is feasible to begin construction of such large projects in such volatile situations and without the consent of the local people.

The idea to build dams on the Salween River is not a new one. Japanese and Australian consulting companies in cooperation with the Thai and Myanmar governments have researched and produced major studies investigating potential large dam construction on the Salween (KRW 2004, 11). Preliminary studies were then commissioned by Thailand and Myanmar in the early 1990s. Conducted by Japan's Electric Power Development Company, 10 potential dam sites were identified on the river (Magee and Kelley 2009, 121). What makes the Salween River so attractive for hydropower development is the

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<sup>26</sup> Myanmar is divided into seven states and seven regions. Regions are predominantly Burman (the dominant ethnic group), whereas states are areas mainly inhabited by ethnic minorities.

fact that it drops some 5,000 m over its 2,800 km course (Magee and Kelley 2009, 115). Thai energy planners had identified the Salween as the “most favourable location for transboundary hydropower development, notwithstanding security and political concerns” (Magee and Kelley 2009, 123) and according to Thailand’s Electricity Generation Authority of Thailand (EGAT), the Salween’s hydropower potential lies at 16,000MW (EGAT 2004). However, due to the economic crisis that hit South East Asia especially hard in 1997, the plans to invest in these dams were side-lined by Thai developers suffering bankruptcy. Other issues impacting this decision are the river’s remoteness and the limited infrastructure available.

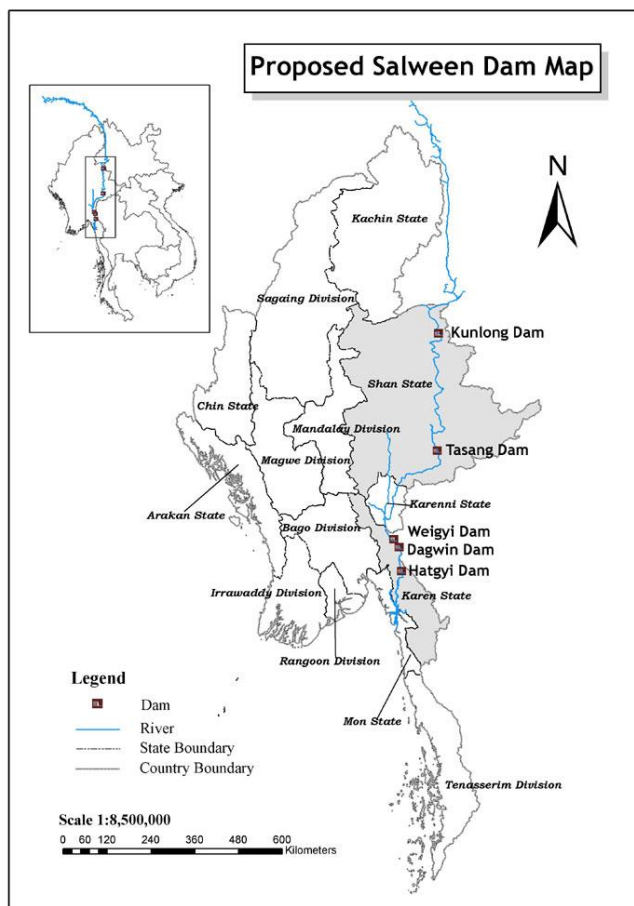
The regions the Salween moves through are remote and sparsely populated, mainly inhabited by ethnic minorities, many of whom are subsistence farmers who depend on the river for their livelihoods (Magee and Kelley 2009, 117). Ethnic insurgencies have played a large part in the delay of the implementation of any of the suggested dam projects until recently. However, given that some of the major ethnic armed groups, such as the KNU, have signed ceasefires in early 2012, concerns have been growing that this may pave the way towards the beginning of dam construction on the Salween (Irrawaddy News 2013). These concerns were indeed not unfounded considering that by February 2013, Deputy Minister of Electric Power informed parliament that the government had already approved feasibility studies for six dams on the Salween<sup>27</sup> (Snaing and Kha 2014). Investment for these dams will come from five Chinese corporations, Thailand’s Electricity Generation Authority of Thailand (EGAT) International Co. Ltd and three Burmese corporations (Salween Watch 2013).

According to Irrawaddy News, Minister of Electrical Power Khin Maung Soe stated that “the government would commission international consultants to carry out environmental and social impact assessments for all planned Salween dams” (Snaing and Kha 2014). In total, all of the dams are said to produce 17,000 MW of electricity, the majority of which will be exported (Campbell 2012).

Memorandums of Understanding (MoU) and agreements for some of the Salween dam constructions were already signed and initiated between Myanmar and Thailand in 2005

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<sup>27</sup> For a list and short introduction to these dams, please refer to Appendix 6



**Map 2 - Proposed Salween Dam. Source: (Living River Siam Association)**

(KDRG 2006, 2). Subsequently, in 2010, the Myanmar government signed further memorandums of understanding for the above mentioned hydropower projects, paving the way for various Chinese-Thai-Burmese joint ventures to develop them. According to those agreements, most of the power generated will go to Thailand or China (Mang and Yan 2013). Information on the dams and how far the implementation process has gone is limited due to the controversies surrounding their construction and

the awareness of both the Thai and Myanmar Governments of the

potential for bad publicity, shrouding the process in secrecy. Moreover, access to information with regards to conducted Environmental Impact Assessments (EIAs)<sup>28</sup> or other studies is virtually non-existent and all information gathered here is mainly based on local newspaper articles and civil society reports.

### 5.3 The Hat Gyi Dam<sup>29</sup>

The Hat Gyi Dam is located in Karen State about 47 km from the Thailand-Burma border. The project is being jointly developed by EGAT International Co and China's Sinohydro Corporation (Salween Watch 2013) after the signing of a Memorandum of

<sup>28</sup> Environmental Impact Assessments began to be formalized and implemented in various countries in the 1980s in order to help address concerns relating to environmental and social impacts of dams. EIAs are defined as "a decision tool employed to identify and evaluate the probable environmental consequences of certain proposed development actions in order to facilitate informed decision-making and sound environmental management" (Cashmore et al. 2004, 295).

<sup>29</sup> Also sometimes spelled Hutgyi, Hutgi or Hatkyi

Understanding (MoU) with the SPDC government to construct several hydropower dams on the River (Simpson 2007, 549). Sinohydro's role in the Hat Gyi dam is not only limited to that of the biggest investor. It will also be responsible for the design, procurement and implementation works of the project, making this a lucrative business for the company (China Economic Daily 2006). The Hat Gyi Dam is the first of the dams on the Salween to be constructed and is posed to have an installed capacity of 1,360 MW (ERI 2008, 5). It should be noted that recommendations from the pre-feasibility studies that were initiated as early as 1998, suggested a low-height, run-of-river dam with a capacity of 300 MW (Magee and Kelley 2009, 124) in comparison to what is actually being proposed now. Nonetheless, agreement to begin work on the dam was stalled until 2009 (Zerrouk 2013, 73), mainly on the grounds of security concerns associated with the area and the on-going conflict with ethnic armed groups there. Such concerns are not unwarranted, especially since in at least two occasions EGAT staff has been injured and/or killed due to the continued armed violence (Zerrouk 2013, 75).

Of the 1,360 MW produced, 10% is slated for Myanmar's domestic consumption<sup>30</sup> whilst the rest will be sold to Thailand. According to EGAT's calculations, nine villages in Myanmar will be directly impacted by the dam project. This figure is negated by Karen River Watch's director Saw Nay who claims that more than 20 villages in the upper Hat Gyi dam area will be forced to relocate (Saw Yan Naing 2008).

### **The issue of transboundary laws and the Salween**

The potential costs of tensions between riparian nations over transboundary waters are high. They can hinder regional integration and be a danger to both trade and stability (Jägerskog 2013, 50). On the other hand, if transboundary waters are managed properly, they can serve as "a focal point for cooperation, thereby diminishing tensions between countries while promoting regional integration and development, both within a basin and in a wider region" (Jägerskog 2013, 50).

However, building dams without the necessary treaties in place can potentially result in conflict situations and is strongly advised against by Scudder who states that:

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<sup>30</sup> Although where exactly this 10% will end up going is unclear: will the people of Karen State benefit, or will it be going to industry and the large cities?

Large dams should not be built in international river basins without either a treaty between the basin states or a willingness on the part of the dam-building nation to abide by the guidelines incorporated within the UN's convention on the Law of the Non-Navigational Uses of International watercourses (Scudder 2006, 299).

The problem with the Salween River is that China, Thailand and Myanmar have yet to sign any agreement on the use of the River, allowing them each to technically do as they please on their part of the River. Given that China is backing plans to dam its part of the Nu/Salween River, that may spell various consequences for the downstream nations, and without an international framework to abide to, there is nothing Myanmar or Thailand could do to protest (if they decided to do so).

### **The importance of Hat Gyi area**

The area surrounding the dam site is also of strategic importance to the KNU. The Salween River is an important part of everyday life for people living in the region. It is also vital for transportation, not only between villages and States in Myanmar itself, but to many of the villager's main trading partner – Thailand. This connection is just as important to the ethnic armed groups. Many of the refugee camps that have been set up on the Thai side of the River receive considerable support from international NGOs, especially since Myanmar was closed off to such organisations until recently. This connection between international NGOs and IDP camps in Thailand is important due to the fact that many of these camps have been dominated by KNU-affiliated authorities. These camps not only provide shelter and supplies for thousands of personnel of the KNU/KNLA, and/or their families, but they have also tended to serve as unofficial base areas for the KNU and other insurgent groups (South 2011, 33). Thus, succeeding in building the dams on the Salween in general, and the Hat Gyi dam in particular, would essentially destroy a vital support system that has been in place for decades for the insurgent groups and substantially cripple their operation possibilities.

Not just that, but Thailand's involvement in the dam construction has meant a greater interest from the government and military's side to achieve full control over roads with close and direct access to the Thai border, with Paul Sein Twa - the director of KESAN – noting that “the Burmese army needs to make the dam site more attractive to the Thai



investors” (Macan-Markar 2009). A closer analysis of the government’s motive behind the dam construction will be presented in the next chapter.

This chapter served to introduce and explain what exactly constitutes a large hydropower dam and what its positive and negative impacts may entail. It further introduced the Hat Gyi dam itself and described some of the problems and conflicts associated with it. The following chapter serves to present the various government actors involved in the project and what their motives behind dam construction in Myanmar are in order to gain deeper insights into the economic and political drivers pushing for the Hat Gyi dam’s completion.

## **6 State perspectives: China, Thailand and Myanmar**

It has been noted previously, that taking a closer look at various actors involved and understanding the (potentially) unequal relations between these different actors is key in order to understand the patterns of human-environment interaction and how they correlate to environmental problems. It is important to present the various players, their motives and their interests in dam construction in Myanmar in general, and on the Salween River in particular. This chapter aims at demonstrating the various government actors involved and the companies that represent them on the ground, in order to gain an overview of some of the motives behind their actions. Doing so helps answer some questions, such as why the Myanmar government has decided to focus its energy supply generation so much on hydropower, even though the construction costs can be quite astronomical. Why are foreign governments interested in dam construction in Myanmar, and what do they have to gain from it? Is the government of Myanmar being pushed around by such economic heavyweights as China and thus have no other choice but to comply due to the precarious nature of their own economy, or do they have their own agenda at play? International actors will be presented first due to the fact that their policies in turn have a strong influence on how Myanmar's government develops its own policies.

### **6.1 China**

Whilst the construction of large dams worldwide has been decreasing since the 1980s, China's investment in the industry has been on the rise, not only domestically, but also overseas. Since the 1950s, large dam projects have truly become a booming business and investment there, resulting in China dominating the large dam scene, by building some 22.000 dams more than 15 metres tall within the last 60 years (Lewis 2013). China has indeed stepped up to become one of the global leaders in dam construction, egged on by an exponentially growing economy that needs energy in order to keep flourishing, but also by the gap left by the traditional dam funders, due to the emerging concerns over the environmental impacts of large dams. The hallmark of this expertise is represented by the construction of the Three Gorges Dam, one of the largest dams in

the world whose construction took over a decade, boasting a reservoir that backs up the Yangtze River for hundreds of kilometres, is 200 metres high, able to achieve an installed capacity of 22,000 MW and resulting in the relocation of over 1.2 million people (Bosshard 2012). Drawing from its experiences, China sees itself as a leading dam-building expertise exporter, seeing the investment in large dams abroad as a “win-win” situation for both China and the host country (International Rivers 2008, 3).

### **6.1.1 Reasons for China’s investment in hydropower abroad**

China’s hydropower development is nothing new, as we have seen. However, what is new is the government’s increased attention to and emphasis on renewable energy sources and the benefits of sustainable development linked to them. China’s 11<sup>th</sup> Five-Year Plan for Development of Renewable Energy states that “consumption of non-fossil fuel will account for 15% of the primary energy consumption by 2020”, and carbon emissions are posed to be reduced 40% - 45% by 2020 compared to 2005 (Xingang et al. 2012, 1), with hydropower representing a huge component of energy production in this regard. Already now, China’s pure hydro installed capacity is 260 GW - more than Brazil, the United States and Canada combined (IHA 2014). The Chinese government has realized the environmental implications the country’s remarkable growth over the past decades has had. Growing to become one of the most influential players in the global economy (World Bank 2015a), has come at a price and China now faces air pollution challenges with huge health impacts, water shortages, and desertification – to name a few. At the same time, sustained economic growth is necessary for China, considering 11.8% of the population still live below the income poverty line (UNDP 2014).

A way to mitigate a worsening of the environmental situation whilst sustaining growth is investing in renewable energy production. At present, coal and oil still represent China’s main source of electricity generation<sup>31</sup>. Hydropower can help reduce the stark dependence on power plants and fossil fuels. Investing in hydropower helps diversify China’s energy mix and also reduce its reliance on oil. This is not only a factor for environmental stability, but also geopolitically, since China has become the second

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<sup>31</sup> 85% of China’s primary energy supply to be exact (Clemente 2015)

largest consumer of oil – oil which it largely imports from abroad (McDonald, Bosshard, and Brewer 2009, 297). This is also linked to China's geopolitical concerns in the region, since said imported oil has to traverse through the Malacca Strait to reach China. This dependence (both in regards to oil and the Malacca Strait) troubles China, who fears that in the event of a political crisis or even war, it would be relatively easy to cut them off in what has been dubbed the “Malacca dilemma” (ICG 2010, 8). This would cause major problems for China, who currently imports 80% of all of its oil supplies through the Malacca Strait (Kolås and Tønnesson 2006). Through Myanmar, China can access to the Indian Ocean thus circumventing the problem of dependency. Moreover, in building up infrastructure linked to large dams, such as roads, China may also be able to link such developments to its long-term strategic ambition of a “golden Quadrangle trade zone” which would consist of Yunnan Province, Myanmar, Thailand and Laos (Geng 2006).

What is more, since the companies awarded the bid abroad are often Chinese companies themselves, investing in hydropower abroad actually serves to boost the local economy in China. Contracts for engineers, materials, and equipment all go to Chinese firms, who often employ and take Chinese workforce with them to work on the dam sites. These trade concessions are often linked to aid plans set up, by for example providing “both investments and concessional loans for dam building and linking this to the export of electricity coupled with the import of Chinese manufactured goods and trade deals for Chinese firms” (Urban et al. 2013, 312).

By offering developing nations an attractive alternative to Western financing and aid through its “non-interference” policy, China has, among other things, spurred a comeback of large dams construction (Pearse-Smith 2014, 124), especially in developing nations who are following in China's footsteps and choosing to invest in large hydropower dams as an alternative to fossil fuels. This of course bodes well for China's companies investing overseas and has been capitalized upon: as of November 2014, Chinese hydropower companies are involved in nearly 300 dam construction projects worldwide (International Rivers 2014a).

On the other end of things, China has also been witnessing the growth of environmental civil society groups willing to speak out and openly protest such plans. Indeed, it was the efforts of “the burgeoning Chinese environmental movement” that eventually led to

Chinese Premier Wen Jiabao suspending the dam projects slated for the Chinese part of the (Nu-) Salween River (International Rivers 2014c). This, in conjunction with the negative experiences from the Three Gorges Dam<sup>32</sup>, made further investment in large hydropower domestically a no-go area for a while. Add to this the fact that domestic competition for contracts has been quite high, and the fact that the Chinese government actively started to encourage companies to invest overseas in what is termed the “going out” strategy which provides companies with incentives to pursue international markets (International Rivers 2008, 5), and a clear image emerges as to why China is so interested in pursuing large dam construction abroad, especially in neighbouring countries where the energy generated can be fed into the national grid.

Myanmar, then still a full-fledged dictatorship, ostracized by the international community and hungry for investments, and with few (if any) environmental laws and conditions, was the perfect man for the job. By 2005 and within the span of only a decade, China had already constructed six hydropower plants and one thermal power station in Myanmar (Geng 2006).

### **6.1.2 Actors involved in the dam industry in China**

The number of Chinese actors involved in overseas hydropower development is quite complex and will not be presented in detail. It does deserve mentioning however, seeing as many companies are directly linked to the Chinese government itself. China’s top government institution, the State Council, is involved in overseas dam projects through diplomatic means (meeting with heads of foreign states, promising development assistance etc.), as well as in a more direct manner, since the State Council has to approve overseas projects that will exceed the costs of US \$200 million (McDonald, Bosshard, and Brewer 2009, 298). Moreover, many companies may play different roles within hydropower development, depending on the project. Thus, Sinohydro for example can act as a developer, builder and contractor depending on the project (Urban et al. 2013, 316).

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<sup>32</sup> The project has set the record for number of people displaced (more than 1.2 million), and has been plagued by issues of corruption, spiralling costs, environmental impacts, human rights violations and resettlement difficulties (Bosshard 2012)

## **Sinohydro**

Given Sinohydro's involvement in the Hat Gyi dam we will be looking at in greater detail in the next chapter, a short introduction to the company is deemed useful for context. Sinohydro is a state-owned enterprise (SOE) and transnational corporation. Not only is it China's largest dam building company, it is also the world's largest hydropower construction company, with a 50% share of the international hydropower market (International Rivers 2012b). It is made up of 23 further subsidiary companies and two shareholding companies (International Rivers 2008, 11). Within China, Sinohydro has been in charge of building around 80% of hydropower projects. Internationally, the SOE has worked in over 50 countries, and has been involved in some controversial dam projects, such as the Merowe Dam in Sudan (International Rivers 2008, 12). Sinohydro has since then developed environmental and social policies, which were introduced in 2011. However, these policies are very generic, including such principles as "respecting local culture, religion and customs" and "undertaking business in compliance with the rule of law", "contribute to local society development", and to "commit to limiting the impact of our business activities on the environment" (Sinohydro 2014).

## **China and the Salween**

China's going out strategy has paid off in the case of Myanmar, with Chinese companies representing the country's main cooperation partners when it comes to investment and technical support in dam building (Kattelus, Rahaman, and Varis 2014, 89). China is "by far the largest financier of hydropower" in Myanmar, with Chinese SOEs being involved in almost every large-scale hydropower project there (Doran, Christensen, and Aye 2014, 88). With regards to the proposed dams on the Salween River, Chinese companies are involved in each one of them (Salween Watch 2013).

## **6.2 Thailand**

Like China, Thailand has made remarkable strides with regards to its economic development and has been classified as an upper-middle income economy since 2011, moving up from its status as a low income country in less than a generation affording it the title of development success story (World Bank 2015b). Thailand too demonstrated

high economic growth of 8-9%/year during the 1980s and 1990s, but has taken a step backward in the eve of the Asian Crisis of 1997 (World Bank 2015b), but still represented the highest GDP per capita among the GMS countries. Moreover, per-capita energy use continues to increase, reaching almost three-quarters of the OECD average (IEA 2013, 54). This stark development and economic growth has however been predicated on an increase in primary energy needs, which have seen an average annual growth rate of 5.4% (Asian Institute of Technology 2010, 7) and has resulted in Thailand becoming increasingly reliant on energy imports, especially fossil-fuels, which in 2008 made up 50% of the country's energy supply (Watcharejyothin and Shrestha 2009, 1783). A growing amount of concern the environment, as well as Thailand's (and ASEAN's) own commitment to diversify fuels used in power generation, have been only some of the drivers for Thailand to consider power import as an integral part of its power supply source in the future (Watcharejyothin and Shrestha 2009, 1783). Given Thailand's focus on oil as a primary source for its energy and the volatility of the market, a diversification of its energy imports would seem not only wise, but necessary.

Moreover, from a geopolitical standpoint, Thailand's main developmental focus has been to ensure "sufficient electricity for unrestricted industrial development and to act as a regional hub of an ASEAN power grid" (Simpson 2007, 543). The dams on the Salween represent an important component of both those ambitions.

### **Thailand and hydropower**

Thailand has constructed more than 40 major dams since the 1960s. The experiences from such major dam projects, such as the controversial Pak Mun Dam which has affected more than 20,000 people in Thailand, have resulted in significant opposition towards such ventures from rural communities (International Rivers N/A). Thus, as we have seen happen in China, local community groups and NGOs have joined together and increasingly resisted and protested new large power plants in Thailand since the late 1980s (Middleton 2012, 293). According to International Rivers, the strong opposition to these dams has essentially halted any possibility of future dam construction in Thailand itself, with local communities still fighting for a permanent decommissioning of the dams (International Rivers N/A). The result has been a shift in focus from

domestic hydropower production to importing cheap energy from neighbouring countries, especially Laos and Myanmar, in order to sustain economic growth.

Greater regional integration, which will be discussed in more detail below, coupled with limited domestic hydropower, has enabled Thai power planners to look towards Laos and Myanmar in particular for the country's energy needs. Add to that the fact that civil society opposition in Myanmar is still constrained, especially in comparison to the growing domestic opposition to dams and power plants, and one can understand the attraction of sourcing energy needs from abroad under such favourable conditions. What is however problematic is the fact that so far, such hydropower projects are not subject to Thai environmental regulations and public review (Greacen and Greacen 2012, 14).

### **6.2.1 Thailand's energy needs**

An important driver in Thailand's energy consumption is the country's love of malls. Whilst Thailand is obviously not the only country in the world that has exhibited a large interest in expanding its shopping malls (the UAE, Japan and the USA come to mind), it does create certain problems in a country so dependent on importing energy, as well as exacerbating the problem of energy efficiency. Due to its location, Bangkok's shopping malls – located in one of the hottest big cities in the world – consume a huge amount of electricity due to their air conditioning systems. Siam Paragon mall – a huge complex - consumes “nearly twice as much power annually as all of Thailand's underdeveloped Mae Hong Son province, home to about 250,000 people” (Pasick 2015). Due to Thailand's climate and the fact that these massive malls are so well air conditioned, they have become the de-facto ‘place to be’ for many locals: Siam Paragon for example, was the most tagged location on Instagram worldwide in 2013 (Panyalimpanun 2015). Bangkok currently has about 60 community malls, and that number is only set to increase with at least 28 more set to open in 2015-16 (Panyalimpanun 2015). However, that huge energy demand spells dire consequences for Thailand's neighbours, whose hydropower dam projects are set to help provide the electricity for these energy-hungry malls. Moreover, Bangkok's rapid growth over the past decades, coupled with its unique form of urbanization (focusing on townhouses and detached housing which consume a lot of electricity), has resulted in high electricity consumption (Marks 2014).



Moreover, the government has refrained from chastising companies not conforming to green building codes, whilst electricity pricing only varies minimally between industries and home residents (Marks 2014).

And whilst Thailand's new Power Development Plan (PDP 2015), presented in May 2015 and which presents Thailand's energy and investment plans for the upcoming 21 years, includes an Alternative Energy Development Plan and an Energy Efficiency Development Plan, demonstrating an acknowledgment of the need to invest in cleaner energy, Thailand still plans to double its installed energy capacity to reach 70 GW up from 32 GW (2011) by 2036 (Deetes 2015a). This in turn, will only be possible through massive imports from both Laos and Myanmar, especially with regards to hydropower. Indeed hydropower energy imports accounted for 7% of Thailand's installed capacity in September last year (Deetes 2015a) with that number set to rise up to 15-20% in the next 20 years.

### **6.2.2 Thailand's energy provider: Hungry for Myanmar's electricity**

The Electricity Generating Authority of Thailand (EGAT) was established in 1968 and has grown to become an influential political actor (Greacen and Greacen quoted in Middleton 2012, 295). EGAT served as Thailand's monopoly generator of electricity until 1992, which helped achieve the country's rapid electrification, but also resulted in disregard for environmental and social impacts. EGAT is the generating body, purchasing company, supplier and distributor of electricity in/to Thailand (Zerrouk 2013, 71).

EGAT's dominance still remains largely uncontested and the Thai Ministry of Energy was only established in 2002, with an energy regulator not being put in place until the creation of the Energy Regulatory Commission (ERC) in 2007 (Middleton 2012, 297).

Facing "increased fossil fuel prices, the need to diversify its energy mix, growing public concern about climate change and strong opposition to building new large power stations at home", EGAT has increasingly turned to importing hydropower from its neighbours (Middleton, Garcia, and Foran 2009, 30). This is also supported by the

military-led government, which has expressed its concern that the country has become too dependent on expensive natural gas (Boot 2014b).

What is interesting is the fact that Thailand and EGAT have tended to set aside relatively high margins of available surplus of unused energy (from 15% up to 39% in some years) (Deetes 2015a) and which even has been labelled as “out of touch with historic trends in electricity demand” (Greacen and Greacen 2012). Peak demand figures and calculations are important since electricity cannot be “cost-effectively stored at national-scales”, meaning that supply must be balanced with demand at all times (Greacen and Greacen 2012, 10). These calculations in turn determine, for example, the amount of power plants necessary to ensure adequate power supply (ibid.). Thailand’s high focus on energy security so far has come at the expense of environmental concerns as well as the price to consumers. According to Greacen and Greacen, every Power Development Plan (PDP) has so far made unrealistically high peak demand forecasts and based on their analysis, the 2030 Peak Demand could actually amount to about 13,200 MW less than what has been calculated by the PDP (Greacen and Greacen 2012, 13). This represents a marked difference, with huge impacts beyond Thailand’s borders, but could be said to make economic sense for EGAT since it is in their interest to maintain high-energy demand and low-energy costs (Zerrouk 2013, 71).

### **Thailand and the Salween**

Thailand’s plans to build dams in neighbouring countries were first proposed 30 years ago, but have gained further momentum in the last years with then Prime Minister Choonhavan famously putting forth the idea of turning “battlefields into marketplaces” (Magee and Kelley 2009, 115). Thailand has been involved in studying the potential for hydropower on the Salween since 1981. These studies identified 10 potential dam sites on the Salween (Magee and Kelley 2009, 121). According to Burma Rivers Network, EGAT is involved in some capacity in at least 4 of the 6 dams proposed for the Salween River.

### **Thailand’s mitigation plans for the Hat Gyi Dam**

An EIA has been conducted by the Environment Research Institute at Chulalongkorn University in Bangkok, but has yet to be made available to the public. Moreover, the

EIA has been criticized for downplaying the environmental and human impact of the potential dam (Magee and Kelley 2009, 125). What is more, the problem with the Hat Gyi dam is that it is a transboundary dam structure placed on a River that has yet to have an international and transboundary political and/or diplomatic mechanism in place for dealing with issues that will undoubtedly carry impacts for both Myanmar and Thailand. This makes things a bit tricky, whilst also providing EGAT with a nifty legal loophole with regards to EIA implementation. Since the dam will be located in Myanmar, EGAT claims Thai villages will not be impacted and not flooded, which implies that they do not have to conduct an EIA assessment. Moreover, given Myanmar's as of yet weak administrative and legal machineries and lack of concrete EIA guidelines, EGAT could well claim to have fulfilled its CSR obligations (Shining 2011, 82). Whilst Thai law is more stringent than Myanmar law, whether or not it can be applied in this case is rather ambiguous given the transboundary nature of the project (Shining 2011, 83).

EGAT does state however that it "guarantees to support communities that are directly impacted by the Hat Gyi Dam project" (Shining 2011, 3). It goes on to say that it has "detailed long-term plans to mitigate any and all project impacts, such as potential flooding or the possible extinction of local fish species", as well as assuring it will compensate the villages directly affected by the dam (Shining 2011, 3). Residents from the nine villages inside Myanmar identified as being directly impacted by the dam will receive appropriate resettlement accommodations in Bago town, and will get support for ancillary community development programs along the Thailand-Myanmar border, as well as a social welfare system that will be put in place (Shining 2011, 3).

The compensation will supposedly include the fee for transferring villager's belongings. EGAT also states that it will cooperate with biological engineers in order to study the fish species in the Salween and around the dam site. Based upon the study, EGAT will pursue to design and make a fish ladder to allow the fish to swim from the downstream to upstream for laying their eggs (EGAT quoted in Shining 2011, 44).

EGAT has also attempted to conduct public relations activities with affected communities on both sides of the border and promote the dam. This is interesting, especially given the cloud of secrecy that generally surrounds the project, something

which is enshrined in a confidentiality clause in the MoU signed by EGAT and the government of Myanmar (Cropley 2006).

Interestingly enough, due to pressures from the Thai National Human Rights Commission (TNHRC) – which argued that the continued fighting so close to the border would eventually spill over into Thailand – the government halted the dam project for some time and established a Committee studying Human Rights violations with regards to the Hat Gyi Dam. A further sub-committee titled the “Information Disclosure Subcommittee on Hutgyi Hydropower Project on the Salween River” was formed in 2009 (Shining 2011, 31), but was disbanded again after the new government took power in 2011.

Whilst EGAT has fulfilled its obligations of “public participation”, this has mainly been done on Thai soil (especially given that Thai law in these matters is more stringent than in Myanmar). A Public Information Forum was held in Ban Sob Moei in 2009 and 2011, as well as in two other villages on the Thai side of the River and invited academics and civil society groups, among others, to participate (Shining 2011, 49). Whilst this is more than can be said to have happened on the Myanmar side of the River, there are still a number of problems with EGAT’s public participation mechanism. Villagers were not given enough time to prepare, were given reading material that can only go so far when some parts of the population cannot read, and has tended to emphasize the positive impacts of the dam, repeating that “the Thai side will not be flooded” – something disputed by villagers and civil society organisations.

### **6.3 Dams and the government of Myanmar**

*“By 2030, the government hopes 100% of the country’s electricity will come from hydropower plants, which are the most cost-effective option” - SPDC official from the Ministry of Electric Power (June 2006) (KHRG 2007, 35)*

As we have seen, Myanmar has a huge hydropower capacity. Currently, there are 24 hydropower projects in operation in Myanmar, all with a capacity greater than 5MW, with 7 more being under construction and preliminary agreements for 35 new projects having been signed, according to a statement by Min Khaing, the director of the department of hydropower implementation at the Ministry of Electric Power. If

completed the amount of power generated from hydropower plants in Myanmar would total 43 GW (up from the currently installed 3 GW) (Vrieze 2015).

### **6.3.1 The evolution of Hydropower in Myanmar under the military government**

The exponential focus on hydropower in Myanmar began around the 1990s. The regime, wanting to shift focus away from all the negative media attention it received and in a bid to distract its people, decided to put the issue of “development” high on its agenda (KRW 2004, 9). The linking of limited control and economic concessions helped broker many of the ceasefires with ethnic armed groups in the early 1990s, which in turn led to creation of the Border Area Development (BAD) programme. What is more, since the SPDC came to power in 1988, evidence indicates there having been a “hard sell” of the country’s natural resources, without the earnings of those projects trickling down to the local population, nor any “long-term planning guiding foreign investment projects being approved” (McCarthy 2000, 261). Indeed, rumours have it that the Council Chairman of the SPDC, Sr. General Than Shwe, fancied himself the reincarnation of King Anawrahta, the Pagan-era monarch who was a prolific dam and canal builder (Akimoto 2004), inspiring him to follow in those footsteps.

Until only recently, broad government-to-government bilateral agreements were provided for a specific time period regarding the sale and purchase of specific amounts of energy (Doran, Christensen, and Aye 2014, 87). This has since then shifted towards a more project specific negotiating policy with neighbouring countries in order to encourage regional investment in its energy infrastructure (Doran, Christensen, and Aye 2014, 87).

Given the authoritarian nature of Myanmar’s previous regimes and the country’s isolation until recently, has meant a great dependence on foreign ODA from fellow Asian nations such as Japan. Japan’s aid was dominated by support for large-scale infrastructure, an idea predicated on the assumption that this would help lay the foundation for private investment and the flourishing of entrepreneurship, as well as buying them political influence (Reilly 2013, 143). Thus, Japan funded Myanmar’s first big hydropower construction, the Baluchaung Dam project, in 1960. The construction was marred by vast human rights abuses, forced labour, rape accounts and arbitrary

killings reported being perpetrated against the local Karenni population by the Tatmadaw (Parry 2006). At the same time, the majority of the villages surrounding the dam do not have access to electricity, to this day (Simpson 2007, 550).

During Myanmar's socialist and isolation period, the government did not build another major dam until 1985. Since then, Myanmar's hydropower development has seen significant change. The industry began to truly take off in the late 1990s-early 2000s with the junta recognizing the country's huge potential, resulting in the restructuring of the Ministry of Electric Power and its Department of Hydropower. It also signed the Inter-Government Agreement on Regional Power Trade in the Greater Mekong Sub-Region Countries, demonstrating its hopes for becoming a regional player already then and exporting power generated to other GMS countries through the Asia Power Grid (Magee and Kelley 2009, 123).

This acceleration in hydropower development in the last two decades has seen the installed hydropower capacity grow from 258MW in 1990 to 2,700MW in 2012 and hydropower generation going from 1,181GWh to 7,688GWh (EIA 2012).

However, Myanmar's key load centres are concentrated in the central and lower parts of the country, which is why hydropower development so far has mainly concentrated on those regions close to the national grid (Magee and Kelley 2009, 122). It also means that energy has been concentrated on feeding the main economic centres of the country, namely Yangon, Mandalay and more recently Naypidaw<sup>33</sup> (Greacen and Palettu 2007, 106).

Under the concessions ushered by Myanmar's regime, China and Thailand, among others, profited greatly. For example, China's first build-operate-transfer hydropower project, the Shweli 1 Dam in Northern Shan State, has seen Chinese companies receiving as much as 80% of the revenue generated, as well as receiving the majority of the generated electricity (Beck 2007). The remainder of the electricity generated is said to be supplying domestic military-owned mining operations, instead of, as stated by General Myint Hlaing, "develop ethnic people's social life" and benefitting the people (Salween Watch and PYNG 2007, 8).

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<sup>33</sup> Naypidaw was instituted as the country's new capital in 2005.

### **6.3.2 The current government's perspectives on dams**

In his inauguration speech in March 2011, President Thein Sein announced the government's intention of inviting foreign investment into Myanmar, stating that it was in order to help develop both the nation and its people: "we will make sure that fruitful results of the prudent plans will go down to the grassroots level" (The New Light of Myanmar 2011). Since then, the government has continuously re-confirmed its strong focus on poverty reduction, specifically linking it to economic reforms (Buchanan, Kramer, and Woods 2013, 11). An important way to achieve this is through electrification and the construction of hydropower stations. This was again underlined when Union Parliament Speaker and Union Solidarity and Development Party Chairman Shwe Mann told the government during parliamentary discussions in June 2014 that the development of Myanmar's energy supply through new dams and coal-fired plants was "imperative" for the country's future development (Snaing and Kha 2014). However, even Shwe Mann emphasized in his address to the parliament that proper impact studies and compensation measures need to be put in place, noting that those displaced by dam projects should receive jobs in return (Snaing and Kha 2014).

As we have seen, the previous government decided to actively focus on electrification through hydropower in the early 2000s. Indeed, the country's two first five-year development plans (2001-2005 and 2006-2010) largely looked to hydropower in order to increase growth of its domestic market (Kattelus, Rahaman, and Varis 2015, 48). However, that is not the only reason large dams are pushed for to such a degree. In fact, the government has called the string of dams slated for the Salween River "signposts of modernity" (Gray 2006), which implies that dams represents more than just an income or electricity providing. They represent Myanmar's move into the "modern age", Myanmar's new era after its status as a pariah for so long.

This is demonstrated to an extent when current Minister of Agriculture and Irrigation, U Myint Hlaing, addressed the Parliament and declared that

While the global countries are facing shortage of food due to climate change, the people of the nation do not need to worry about difficulties thanks to dams and river water pumping projects implemented by the State leaders with farsightedness and food sufficiency through cultivation of

summer paddy, double and mixed cropping patterns (U Myint Hlaing 2012).

Thus, whilst others will suffer dire consequences from climate change, Myanmar will thrive thanks to dam projects. Other officials also have tended to be focus on the benefits of dams. This becomes very clear when inspecting articles from the government-owned newspaper “New Light of Myanmar” covering hydropower dams in the country. Every article relating to dams that was available online tended to describe the dams in much detail (“it can store 2.88 million acre-feet of water at full brim”) whilst also describing all the positive attributes they have to offer

Thaphanseik Dam, the largest one of its kind across the nation, supplies water to 518,035 acres of monsoon paddy and 294,654 acres of summer paddy and other crops totalling 812,689 acres and benefits over 800,000 people from 369 village-tracts in 10 townships of Sagaing Region (The New Light of Myanmar 2014).

In 2009 the newspaper reported that

In the time of the Tatmadaw Government, the natural resources are being utilized with the own technology and human power for ensuring efficiency of electricity of the increasing population and the rising living standard. Therefore, the hydropower plants will emerge one after another in the future. (...) In the future, the country would achieve the sufficiency of electricity and would have the surplus power. As a result, the electricity sufficiency will contribute to the uplift of socio-economic standard of the national brethren and to the development of regions (The New Light of Myanmar 2009).

At the same time, ethnic armed groups opposing dam construction projects were “demonized”. Thus, when talking about an exchange of fire around the Hat Gyi dam site area where a survey project of the site was underway resulting in one of the Thai workers from EGAT being killed, “New Light of Myanmar” reported that

KNU terrorist insurgents are perpetrating a string of atrocities to jeopardize stability of the State, community peace and tranquillity and prevalence of law and order. In the meantime, they are undermining nation-building endeavours being carried out by the government (The New Light of Myanmar 2007).



Moreover, given the positivity towards dam projects permeating within the government apparatus, government officials seemed taken aback when civil society groups and community representatives voiced their concerns during a workshop organized by the World Bank Group in January 2015, with one of the ethnic participants stating that

Dams and hydropower do not have a beautiful name in Burma. In fact our lessons have been of suffering. The postponed Myitsone Dam project on the Irrawaddy River in Kachin state, for example, has left hundreds of resettled families in the relocation site without any assistance for years (Deetes 2015b).

Thus, it is fair to conclude that a disconnect exists between the government's view of dams as modernizing the country and generally being viewed as good, progressive and useful to both government and local people, and the opinion of local communities who are and will be impacted by such dams, with dialogue between the two having been relatively minimal up to date. Workshops as the one mentioned above are a good start to initiate dialogue and make local voices heard. Whether or not local concerns will then be taken into consideration in the planning of dam projects in the future is however a different question.

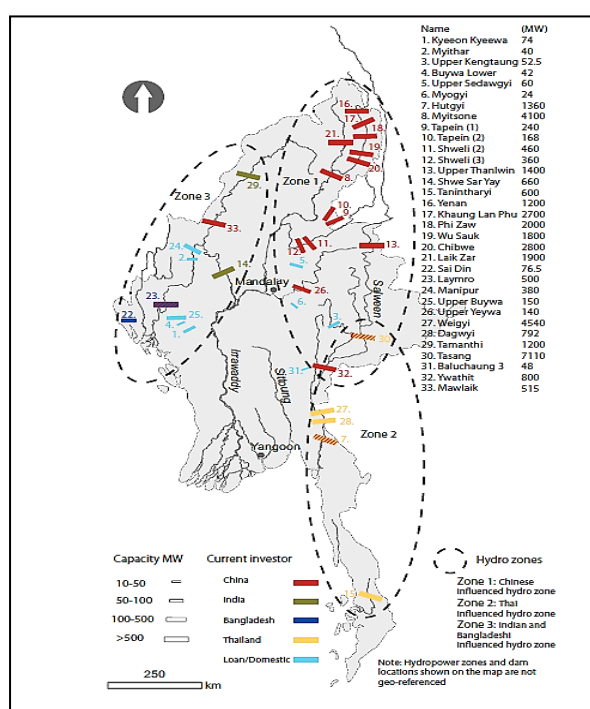
### **Concern for regional energy trade**

In order to achieve better electrification rates and economic growth region-wide, regional energy trade and cross-border hydropower development is not only seen as viable, but necessary and profitable (Kattelus, Rahaman, and Varis 2015, 43), with Myanmar and others beginning to recognize the country's potential at playing an integrating role in linking South and Southeast Asia in this respect (Kattelus, Rahaman, and Varis 2015, 43). Indeed, whilst the above mentioned first development plans focused on hydropower for domestic use, the third five-year plan (2011-2015) shifted that focus towards hydropower usage for export purposes in order to increase the regional power trade with the Greater Mekong Subregion (GMS) and Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) countries (Kattelus, Rahaman, and Varis 2015, 48). Whilst this may come with its own set of problems and exert adverse effects on Myanmar's socioeconomic development due to the potential negative impacts hydropower development can exhibit, such as environmental impacts, the endangerment of water-related livelihoods, increased socioeconomic inequity and

political unrest (Kattelus, Rahaman, and Varis 2015, 44), the geopolitical power implications can prove to be an important motive for hydropower development for export in Myanmar. Thanks to these foreign companies' extensively funding pipeline, hydropower and transport networks in Myanmar, the country is on track to becoming a "regional economic corridor and natural resources production hub" (Talbot 2012).

## Hydropower as investment

With most of Myanmar's planned hydropower dam projects set to export the energy generated to neighbouring countries, hydropower represents a revenue stream not to be underestimated. Map 3 below shows how nearly all of the projects slated for



**Map 3 - Hydropower stations under planning in Myanmar in 2010.** Source: (Kattelus, Rahaman, and Varis 2015, 49)

construction will be built through foreign investors. The energy policies promulgated to push for hydropower export are in turn supported by ongoing economic reforms (Robinson 2012). This way the government is promising favourable economic opportunities in Myanmar to foreign investors supported by new legislations and Free Trade agreements (Kattelus, Rahaman, and Varis 2015, 51). One of these new laws is the new Foreign Investment Law (which can be found in more detail in Appendix 7) which in essence serves to improve the financial

flexibility for foreign companies and expands the number of banks and choices for investors.

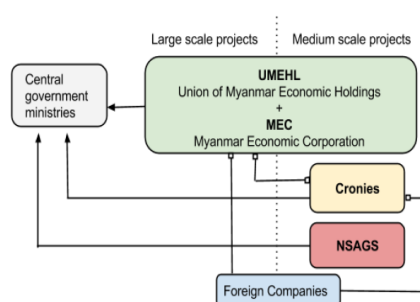
Hydropower then is poised to become not only the number one source of electricity for the country itself, but also a major export earner (Kattelus, Rahaman, and Varis 2014, 88). Thus, for example, "in the first seven months of the 2010-2011 fiscal year alone,

one-third of foreign investment in Myanmar went into the hydropower sector” (Urban et al. 2013, 306) and Shweli 1 and Tapein 1 hydropower projects produced US\$120 million worth in exports in 2011 (Adam Smith International 2015). Moreover, an analysis of the extraction industry sector has indicated that “the potential value of annual hydro production exceeds US\$15 billion (41 GW) if all proposed FDI projects are approved” (Adam Smith International 2015, 9). This could prove to be a huge revenue stream for Myanmar’s newly expanding economy. Myanmar’s policy towards such foreign investment in hydropower has tended to mostly be comprised of joint ventures which are based on agreements being made between the government and public or private companies, “with the requirement of 10-15% free share, and 10-15% free electricity” for Myanmar (Deetes 2015b). The growing importance of hydropower as an income generator is exemplified by the fact that in December 2007, the conclusion of 13 hydropower projects in Myanmar was prioritised over all other projects, “including those in the increasingly significant oil and gas sector” (Magee and Kelley 2009, 124). In the past, much of the revenue from such projects landed in the hands of senior ranks of the military and those funds that did go towards the state budget were often utilized for purchasing military hardware which was used in the country’s many on-going conflicts (Simpson 2013, 132).

### The Centre versus the Periphery: Money for whom?

As has been noted, the electricity generated from the Hat Gyi dam and slated for the Myanmar market will most likely go towards providing energy for the industrial zones.

34



**Figure 2 - Control of major businesses and revenues in Myanmar. Source: (MPM 2013, 14)**

Whilst such investments are important for Myanmar’s economy to grow and will bring certain benefits that should not be discounted, one must also take a closer look at who will actually profit from all of this. As Saw John Bright emphasized, “If they develop these kinds of factories and industrial zones here, where will the source of power for these kinds of business activities come from? Dams!” (Bright

<sup>34</sup> NSAGs here refers to “Non-State Armed Groups”

2014). Figure 1 exemplifies how major businesses have been run in Myanmar so far and by all accounts things have not changed much for the better at the moment, with Myanmar ranking 156<sup>th</sup> out of 175 countries in Transparency International's Corruption Index (Transparency International 2014). Large "crony-owned companies and foreign companies often have to work with the military and their conglomerates in order to conduct business in the country" (MPM 2013, 14). What Figure 1 indicates is that the ones benefitting from big business in Myanmar is generally the Central government ministries. So far, all revenues from natural resource projects have gone to the central government (MPM 2013, 19). Which leads us back to the ongoing conflict with the KNU and other ethnic armed groups. One of the main points of contestation is the way the Constitution addresses "ethnic demands for self-determination, particularly ownership, management and revenue sharing" (MPM 2013, 19). In fact, the centralization of natural resource ownership and management is enshrined in Section 37 of Chapter 1 of the Basic Principles of the Union. Section 37 reads as follows:

"The Union

- (a) is the ultimate owner of all lands and all natural resources above and below the ground, above and beneath the water and in the atmosphere in the Union
- (b) shall enact necessary law to supervise extraction and utilization of State owned natural resources by economic forces
- (c) shall permit citizens right of private property, right of inheritance, right of private initiative and patent in accord with the law" (Government of Myanmar 2008, 10).

In order to address some of the above-mentioned issues, the 2008 Constitution also established the creation of state and regional level governments, which could be labelled a huge step towards further decentralization and more accountability to local populations. In practice this has not yet materialised. So far, assemblies have lacked "institutional and human capacity, have had limited understanding of local governance issues, and power has been inadequately shared between national and regional bodies" (Buchanan, Kramer, and Woods 2013, 8). Whilst the new process initiated by the 2008 Constitution allows for some degree of devolution and power-sharing, such as that the "Region or State Hluttaw shall have the right to enact laws" (Nixon et al. 2013, 12), the clear delineation of how and what the Region will be able to enact and be in charge of has yet to come about. Moreover, in the "Energy, Electricity, Mining and Forestry"

sector, the region's responsibilities are "limited to power generation that is off the national grid, regulation of salt products, polishing local gems (but not mining gems), and firewood" (Nixon et al. 2013, 13). Large projects still fall under the central government's authority. Thus, civil society groups lament that the changes implemented by the government so far are not enough:

The current political environment is just about business, not about the solution. What we want is not business, we want the solution. Decentralisation of power. That is what we want. If we can make that happen, then we can decide how we use and manage our own natural resources, we can manage the cash revenues ourselves etc. (Bright 2014)

This allows us circle back to the first paragraph of this sub-chapter. If the central government receives the revenues, and decides when and how the dam is to be built and where the electricity goes, then where does this leave local villagers? As noted by Saw John Bright, electricity from the Hat Gyi dam will go to Thailand and probably industry in Myanmar, leaving local people potentially in the dark, as can be seen by previous examples and with revenues going to the centre. Sai Khur Hseng talking about a dam in Shan State noted "No, they did not get any electricity from the dam yet. The electricity goes to the capital and to the mining industry" (Sai Khur Hseng 2014).

### **Hydropower as an internal political tool**

However, dam construction does not only offer economic benefits and electrification prospects for the government. It has also been criticized by local civil society groups and ethnic armed groups alike as being a tactic in order to gain ground over ethnic armed groups within their sphere of influence. The impact here is threefold and can be described thusly: the government plans and implements dam projects (without former consent); this leads to development projects around the dam, such as road and bridge construction (which can arguably be considered positive infrastructure development) – however all this infrastructure also results in easier access for the Burmese Army to enter formerly restricted areas, a fact often lamented by ethnic armed groups who see this as a violation of their ceasefire terms (MPM 2013, 3). Moreover, dam construction in such areas means that routes used by ethnic armed groups for supplies and communication purposes are now cut off, considerably weakening the armed groups whilst providing an advantage to the Burmese Army, as noted in one of the interviews I conducted with KESAN representatives (Bright 2014). Reservoir areas behind dams

will flood areas that provided armed groups with shelter or that were being utilized as transit zones (Simpson 2013, 141).

A civil society representative has also been quoted saying “from a political power view, we can think that the government is using dams as a weapon to control and flood these areas, so it can create more conflict” (Vrieze 2015). This also provides them with “legitimacy” to increase military presence around the construction sites under the pretext of having to ‘defend and protect’ them from insurgents (KHRG 2007, 37). Thus, looking at some of the dams on the Salween for example, the Shan State Army South (SSAS) still has sporadic clashes with the military around the Tasang Dam site, whilst the Dagwin, Wei Gyi and Hat Gyi sites provide security for the KNU in addition to representing some of the busiest routes for Karen refugees fleeing into Thailand (KHRG 2007, 38). Additionally, the KNPP also operates around the Wei Gyi Dam site, which would mean the government could severely impact the operating areas of two ethnic armed groups with one dam construction (Simpson 2013, 141).

Another way dam construction is utilized in a tactical manner to impact ethnic armed groups is through the enticement of ethnic businessmen and insurgents. This means that the government suggests business deals to ethnic armed leaders and other businessmen, which is a way of neutralizing movements for autonomy and “doing through commercial means what the government could not fully achieve militarily” (Gray 2015). This can be considered harmful as these deals still do not take into account or consult general public opinion of the local population actually living near the dam sites, bypassing consultations and only dealing with paramilitary groups in charge in the area.

Beyond the factor of legitimization, these infrastructure projects have served to provide the ruling military with new-found access ways to the periphery areas of the country, allowing for an easier access of men and materials (including military equipment) and the ability for closer control of the ethnic minorities (Steinberg 2005, 9). The central government has, in the words of Dr. Brennan, been “very shrewd in how they go about all this”. In order to build such large infrastructure projects, one needs other large infrastructure in place in order to facilitate the building of the former large projects. The fact that has dams running along the Salween River is important because you have to build roads and infrastructure to get there. And if you have roads getting there, you can move troops in there much quicker and control the environment much better. What is

more, if you have foreign, such as Chinese, investment in such dam projects, then they will want to ensure that the internal security of Myanmar is intact in order to ensure their investment is secure. So this may also lead to them helping suppress conflict arising around the infrastructures. But at the same time, that connection between these regions is needed. As we move towards the Asian economic community at the end of this year, the freedom of movement, of goods, and of people, this will be a key component of that (Brennan 2015).

### **6.3.3 Relevant new laws concerning the environment**

With the transition from military to civilian rule, Myanmar, under the leadership of U Thein Sein, has undergone a wide array of reforms in order to make them conform to international standards (Doran, Christensen, and Aye 2014, 87). These include laws and regulations within energy and environment related policy areas, and the World Bank, the ADB, and JICA are only some of the actors involved in helping Myanmar develop policies, plans and legal frameworks to achieve those goals.

However, it is not only new laws that have been put in place, but also new governmental bodies. An important one to mention here briefly is the Myanmar Investment Commission (MIC), since it essentially is in charge of deciding which projects can and will be approved in Myanmar. MIC is a government-appointed body under the Ministry of National Planning and Economic Development that was originally created in 1994, but due to the onset of reforms in 2012, MIC was transformed into a more independent body (NCEA 2015). This has meant that representatives from the private sector and civil society have been invited to be included in the board. However, the key decision-making positions are still held by senior government officials (NCEA 2015), which begs the question as to how transparent and neutral the decision-making can be. The Ministry of Environmental Conservation and Forestry (MOECF) is represented in the MIC panel.

These new laws, which can be found in more detail in Appendix 7, impact hydropower development in Myanmar in a variety of ways. They put in place the legal framework that demands that a restriction be placed across all sectors if “it is detrimental to traditional ethnic cultures and customs or is damaging to public health, natural resources, the environment or biodiversity” (Buchanan, Kramer, and Woods 2013, 29).

It also specifies major development projects that require the implementation of EIAs, as well as basic pollution controls be instituted by investors. However, the MIC – whose key positions are still head by senior government officials – can allow foreign investment into restricted sectors if it is considered as being in the national interest. The new laws establish a comprehensive waste and pollutant monitoring scheme, and have created a draft set of rules for EIAs.

## **Land Reform**

In the domain of land reform, the new laws have prompted stark opposition. In general terms, Myanmar's domestic laws have allowed the government "wide authority to expropriate land" (KHRG 2013, 21) whilst ignoring the traditionally informally established land use patterns that have been customary so far (Transnational Institute 2013, 11). Furthermore, whilst a certain degree of devolution is supposed to be taking place in the country, the central government actually does not need to seek approval from the provincial governments for the implementation of large-sized investments (they do however need to be informed beforehand) (Transnational Institute 2013, 4) and the laws have even been dubbed "a legal tool for land grabbing" (Transnational Institute 2013, 6) by some.

Further complicating the situation is the fact that ethnic armed groups may have their own systems of land registration, which only serves to confound issues of transparency and corruption. In areas of contested authority, communities may even be unaware of their land being given as concession (Guest 2015, 24).

## **Free, Prior, Informed Consent (FPIC) and Myanmar's laws on Indigenous Peoples**

FPIC is an interesting case, in that it is considered a requirement before any development on the land of indigenous peoples can commence, whilst at the same time still being a rather controversial human right (McGee 2009, 571). FPIC is enshrined in the UN's Declaration on the Rights of Indigenous peoples (UNDRIP) in Article 10 which reads that

Indigenous peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free, prior and



informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return (United Nations 2007b, 6).

Whilst the UN Declaration is not legally binding, it does espouse to establish an “important standard for the treatment of indigenous peoples and will undoubtedly be a significant tool towards eliminating human rights violations against indigenous people worldwide and assist them in combating discrimination and marginalization” (United Nations 2007a). Whilst Myanmar has not ratified the ILO’s Indigenous and Tribal Peoples Convention (Convention Nr. 169) – which is a legally binding document- it did, however, vote in favour of endorsement of the UN Declaration on the Rights of Indigenous Peoples in 2007. It should be noted that under the Myanmar Constitution and indeed most domestic laws, there is no acknowledgment of any concept of special minority or indigenous groups who have additional or special rights (MCRB 2014, 134). The latest draft of Myanmar’s proposed EIAs refers to a consultation process, but does not specifically make reference to FPIC.

FPIC in itself does not come without its own set of problems. For example, it raises such questions as who exactly has the right to FPIC, given that it has generally tended to be associated with indigenous peoples, as enshrined in the UNDRIP. However, as we have seen, indigenous peoples as such are not necessarily recognised in the case of Myanmar. Moreover, FPIC begs the question of whose consent is required when it comes to natural resource use. Considering that large dam projects may have unforeseeable effects on various populations after it has been in operation for some time, as well as the effects it may have on downstream communities, how far should FPIC go (Transnational Institute 2013, 7)? Despite its difficulties, the implementation of FPIC is not in question here. Rather, a close examination of how it should be implemented needs to be looked at in more detail. As we will see further on, the problem in Myanmar has been that consent or even consultation has in no shape or form been conducted so far, having dire implications for local people.

Having introduced the reasons for the push to build the Hat Gyi dam from the perspective of the three main government’s involved in its construction, local perceptions from fieldwork conducted will be presented.

## 7 Local perspectives and experiences

All of the local cases studied below, with the exception of Ba Sob Moeng, are located within Karen State. The State borders Thailand to the East, Mon State and Bago Region



**Map 4 - Map depicting the case studies and the dam. Approximation of location of Hat Gyi Dam site (Black); Ban Sob Moei Village in Thailand (Red); Kawkue Village (Purple) and Na Piaw Daw Village (Orange). Source: (KHRG 2011)**

to the West and South, and Mandalay Region, Shan State and Karenni (Kayah) State to the North. Map 4 serves to demonstrate the approximate location of the case studies to follow and the Hat Gyi dam site in order to provide a better overview.

Karen State has experienced a flux as to who controls which part of the State for a long time and it is still officially administered by two different entities: the Myanmar government and the KNU<sup>35</sup>. To further complicate things, DKBA Brigade 5 controls some areas as well, which exemplifies the overlapping and confusion

prevalent on the ground when it comes to who has control.

Official administration is divided between the government of Myanmar and the KNU. The KNU “defines its territory as a semi-autonomous state called Kawthoolei and divides this territory into seven districts, each controlled by a separate brigade” (CPCS 2014, 18). It has also established its own departments of education, health, law and

<sup>35</sup> As of 2014, the KNU controlled and operated in Than Taung, Taungoo, Nyaung Lay Bin, Hlaing Bwe, Hpa-an, Hpa-pun, Kawkareik, Kyar-Inn Seik Gyi, Kyeik-don, and the Northern part of Tanintharyi region (MPM 2014a). Both villages looked at belong to KNU administered areas.

forestry within its administration (CPCS 2014, 18). This system has led to considerable inconsistencies and overlap between the two differently controlled divisions.

Traditionally, Karen State has focused on agriculture and farming together with animal husbandry to provide for people's livelihoods (CPCS 2014, 18). However, this has been expanded upon due to the relatively recent ceasefire agreements being signed with ethnic armed groups and thus the improved stability within the State. Thus, several extractive and business development initiatives have been introduced, most notably the ADB's plan to construct the Asia Highway through Karen State (CPCS 2014, 18).

Services provided in Karen State can be characterised as limited, with education, electricity and telecommunications being available in the State's capital, Hpa'an, but being extremely limited in rural areas (CPCS 2014, 19). Below I shortly describe the three fieldwork sites and how people were informed about the plans for the dams, before summing up people's views and uses of the river and their views on the dam.

## 7.1 Kawkue Village: Presentation and findings



**Picture 2 - A large part of this area is part of Kawkue village. During the rainy season, this area is flooded by the Salween River. Close to the hills in the back is where the conflict area and Hat Gyi dam site lies. Source: Author**

Kawkue village is a small village, located in Hpa'an township in Karen State and is about an hour's drive away from the State's capital city.

The village is located right next to the Salween river, approximately 20 km downstream from the proposed Hat Gyi Dam site, and boasts a population of around 500-700,

all of whom are Pwo Karen from what was conveyed to me. The village's main economic trading partner seemed to be Thailand, with much of the vegetables being grown for export. The river is used for fishing and farming, as well as irrigation, and is also being used as drinking water as I discovered during informal conversations afterward. The current flow of electricity is ensured through a few installed solar panels,

as well as generators, that however do not provide enough for full electrification. Asked about how they feel about electricity, one of the village leaders said that whilst they do really want electricity, they want it to be “natural and for it to not be damaging to the environment” (Informant 1 2014).

When asked whether there have been any changes in how they grow vegetables, he answered that their plantations had changed now because the soil nutrition has become worse and is already lower now than it was before. Being downstream from the majority of the dam cascades planned, especially Hat Gyi Dam, this would probably also have impacts on the river flow, making it even less.

Taking into consideration the issue of free, prior and informed consent, as well as the fact that clearing of the dam site for construction has already begun according to some of my contacts, it appears striking that the villagers had not received any information from any government authority or corporation on the dam construction. The only reason there was some awareness amongst the villagers, was that they started working with KESAN two years ago and had been informed about plans to build dams on the Salween by them. All the information they have received is from civil society organisations. One of the consequences they fear the dams will have is that unemployment will rise, resulting in many more people migrating to Thailand and other countries. Already 50% of the village inhabitants work there according to my informants, making them fear for the survival of the village if many more leave. The statement that “for the next generation we want the natural water from the Salween to remain free flowing and free of dams; we want to conserve the river for our children” (Informant 1 2014), underlines such fears. Moreover, he sounded quite adamant about the fact that neither he nor the villagers would change their minds with regards to the dam being built, even if there were more consultations put in place:

We are responsible for our next generations, so we won't change our minds on this. Also, the companies only talk about the benefits, never about the impact. And we are very worried about the impact this will have on the next generation (Informant 1 2014).

Considering conflict and the various armed groups, my informant mentioned that there was indeed armed conflict in the vicinity in the 1990s, but has since stopped<sup>36</sup>. Moreover, whilst they used to be forced to pay taxes to the armed groups before, they now actually donate to them, specifically supporting the KNU, not the DKBA. Some of their reasons for doing so is fear of the armed groups, but also that they stem from the same ethnic group. Yet they also think that the “KNU’s protest against the government is good, because we ourselves cannot protest the government; so the KNU can do it better” (Informant 1 2014). He also mentioned that companies and the “government don’t come here because of the conflict, so this serves as a kind of protection for the people” (Informant 1 2014), indicating the strong underlying fear of the government still prevalent among many people.

One of the main messages that came across during my group interview with retired villagers was the close relationship they had to the Salween River. They described their dependence on the food they cultivate, stating that it is enough for them to live off, but not to generate income. In the cold season they did not use to have such materials as blankets or mosquito nets, so they had to sleep around the fire. This is significant, because of where much of the gathered wood came from, namely the Salween (broken trees and wood that gets swept in via the current). They were relatively unaware of dam construction nearby, stating that “we heard something, but where and when it is to be built, we do not know” and another asking me directly “where? Where is it being built?” The confusion prevalent about the dam and where electricity will go is also evident from one respondent asking “so if the dam gets built, then we can get electricity? Isn’t that better?” There was further discussion about the subject of access to electricity. Whilst one person suggested that more electricity can be good and benefit the people, others vehemently objected saying “no, electricity won’t be good for us”! This debate and uncertainty stems from the confusion villagers feel when it comes to the subject of electricity. As was explained to me by an informant from KESAN:

They’re confused about electricity. They’re not quite sure what it means. If there’s electricity but they can’t get fish anymore; or the other way around,

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<sup>36</sup> It should be noted however, that armed fighting still continues 10-20km further upstream from the village.

if they can still fish, but then don't have electricity...they don't know. It's very confusing to them.

After we climbed up a hill, reaching a pagoda and providing a viewpoint for the entire area, the village leaders and others showed me how far their village reaches and what areas get flooded during rainy season. The majority of the land usually floods, and when it later on slowly recedes, puddles of lakes will often form, and various fish remain trapped in these newly formed ponds, providing valuable subsistence for the people in the village.

## 7.2 Na Piaw Daw Village<sup>37</sup>, Kalone Island on the Salween



**Picture 3 - Gardens on Kalone Island. The ground here is very fertile due to sediment from the Salween River and is an important source of food for the local people. Source: Author.**

Na Piaw Daw is a beautiful, little village situated on an island on the Salween River and is part of Hlaing Bwe Township. The entire island boasts around 4000 people (3000 households), and the village itself has around 1500 inhabitants. Hlaing Bwe Township is an agricultural area and all along the road to the village we could see plantations and rice fields. The

road to the township was paved this time around, as it offers trading opportunities and is, as far as I understood, supposed to be connected to the Asian Highway. Whilst driving to the village, the repercussions the extension of the Highway has had on local people and the plans to broaden the road for more extensive commercial use were explained to me. What was especially emphasized was that this road leads to the Hat Gyi dam site, meaning that trucks providing materials and that are entering from Thailand will now have much faster and easier access to the dam site.

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<sup>37</sup> Na Piaw Daw means "The Forest of Banana plants"

The people of Kalone Island live off farming and their main produce is beans, peanuts, sugarcane, vegetables and Burmese chocolate. The main source of income stems from trading these goods, with merchants coming in from the cities to collect them and then bringing them to, for example, Hpa'an. According to one informant, the island is famous for its good quality vegetables, which means they can earn a lot of money from it. The Salween is important because it provides "good quality for growing food. The water of the Salween River can enter the middle of the island as well during rainy season, making a lake on the island. We depend on the Salween for nutrition purposes, because it makes the soil so fertile" (Informant 2 2014). During the rainy season the river is also important for collecting large amounts of firewood, which gets swept in from the current upstream.

We began talking about the Hat Gyi dam site, and what people may know about its construction. I learned that they had in fact not been informed in any official capacity by the government or by the construction companies. "We have just heard talking about the dam, but we don't know specifics. We don't know where it's being constructed or by whom. We only hear people talking about 'something'" (Informant 2 2014). "The monk" working with the DKBA had sent them a letter which talked about the Hat Gyi dam, but "it didn't say where or when and what it will mean for us" (Informant 2 2014).

Food plays a central role in Karen culture and a common Karen greeting is *Aw mee wee lee ar* – "Have you finished eating?" (KBDDF 2011, 25). Thus, we halted the interview in order to enjoy lunch together, which had been thoughtfully prepared by the women of the family. It was a wonderful traditional meal, with plates filled with different dishes being laid on the table. Eating together, I have come to learn, is not only a big part of Karen hospitality (my hosts in the city often told me filled with pride, about the famous Karen hospitality), but is also important to form bonds and express respect. During lunch with the village leader, we discussed the complicated tax system the village has to adhere to. Since Na Piaw Daw – and the whole island – is located in a mixed governed area (meaning there is KNU involvement, BGF and the government from what I understand), the inhabitants are forced to pay informal taxes to three different entities: officially to the government, but also unofficially to the BGF troops and the KNU.

After that short interlude, we continued our discussion about the Hat Gyi dam. Similar concerns were raised as in Kawkue village, with my informant saying that whenever the

dam will be built, they will be unaware of its effects on them, and whilst they know that it will produce electricity, they still do not know if they will receive any of said electricity.

We worry about the dam, because the water will decrease and the soil will be affected. We worry we won't be able to get enough water for transportation. And in the rainy season, when we need the water for the crops, we don't know how much of the field it will flood (Informant 2 2014).

People have no experience of openly talking to the government or anyone else about their issues. They have been self-reliant in every respect until now. Thus, Kalone Island has been in charge of their own education, health and everything else so far, with no support from the government, something which could perhaps be attributed to the confusion regarding the mixed and separated governing zones between the KNU and the government. The villagers have even taken matters into their own hands with regards to electricity, with it being mentioned that every household has solar power, which they installed themselves. How much is generated from these installations and how the energy is utilised is unfortunately beyond the scope of this paper.

The general concerns of the villagers can be echoed in my informant's plea directed at me

Please protest against the dam. If the dam is completed, we will have to relocate. If they build the dam on the Salween, it will hugely impact the downstream area, because we depend on the Salween for agriculture. It will have a negative impact. We are afraid of that (Informant 2 2014).

### **7.3 Ban Sob Moeng Village in Thailand**

Ban Sob Moei is located in Mae Hong Son Province in Northern Thailand. It is a remote village, at the confluence of the Moei and Salween Rivers and only accessible via boat. It comprises around 172 households and has an estimated population of 1300 people. The majority of the population of the village are ethnic Karen, and more than 80% hold the Thai citizenship (Shining 2011, 10). The main occupations held are fishing, agriculture, weaving and boating (Shining 2011, 10).



The village is also located only 47km from the Hat Gyi dam site. On the Thai side, this will be the first village to be affected by the dam. Officially, the statements have claimed that no Thai village will be impacted by the dam, but this has yet to be verified. Villagers here are more knowledgeable of the on-going situation than their Myanmar counterparts, given that EGAT has in fact held numerous public disclosure sessions here and in a few other villages nearby (Shining 2011, 3). The first Public Information Forum was held in Ban Sob Moei in 2009 and included representatives of “EGATi, the Thai National Human Rights Commission, and villagers from both sides of the Salween River, as well as academic researchers, media and many NGOs” (Shining 2011, 49). The purpose of the Forum was to hear more about the villagers’ perspective on the proposed Hat Gyi dam. Further meetings were held that same year, with EGATi representatives coming to speak to the villagers about the necessity of the dam, noting that if Thailand backs out, Myanmar and China would still move forward with it (Shining 2011, 50).

As we wait for people to join us after their Church mass, NGO representatives give us a general overview of the situation and the Hat Gyi dam. We are then joined by Decha Srisawaidaoruang, the village’s Thai-Karen headman, with many other villagers taking seat on the grass behind him. Whilst the villagers of Ban Sob Moei are clearly more aware about the project than the villages on the Myanmar side of the border, Srisawaidaoruang still emphasizes the little information they are given regarding the dam project. That, in conjunction with the current political state of Thailand, has them worried that EGAT will be able to use this to their advantage and sign power sharing agreements with counterparts on the other side, without proper vetting and transparency in place (Srisawaidaoruang 2014).

Since there have been so many group visits to the village, the people there have been made aware of the dam construction, but lament the lack of transparency of information on the project. There have been various research groups and dam builder groups coming to them, yet no one has given them any clear and exact information. What is interesting to note is that according to Srisawaidaoruang, “it is not that the villagers accept it or oppose it. They aren’t 100% opposing the project if it benefits the country. “If there is good or adequate assessment of the impact, then they will see how they will react to this project” (Srisawaidaoruang 2014).

The Salween itself is of great importance to the villagers. It is not only used for agricultural purposes, with many citing riverbank agriculture as their main source of income, but it also has spiritual value and is important for transport purposes. During rainy season, the roads to Ban Mea Samlab, a border town close by and important for trade, are inaccessible, so the Salween becomes their only mode of transportation. “When there is an emergency, like someone is sick, if we have to choose between the road and the river, we choose the river” (Srisawaidaoruang 2014). Moreover, as Srisawaidaoruang notes, the villagers have no idea of how to use aquaculture and the type of fishing linked to that (in order to compensate for the potential lack of fishing opportunities after the dam is built), and are thus worried about their occupation and income capabilities. Another concern is related to health impacts of the Hat Gyi dam, since “the flowing river will be stopped by the dam, the water in the reservoir might be polluted” resulting in more widespread malaria, and “since this is the area of malaria already on the border, they are worried there will be more” (Srisawaidaoruang 2014).

It has such an impact on our livelihoods, if we have to leave this village and move to a relocation site or move and live in the town, it would be very difficult for people like us to adjust our livelihoods and our way of life to live in the new place/town. Because of the language, the communication, the education and our traditional way of life (Srisawaidaoruang 2014).

Many of the people of Ban Sob Moei village are actually Karen refugees, who fled the conflict on the other side of the border and joined their Karen relatives here. This is a huge problem for many of the citizens since they do not necessarily have a Thai citizenship card. The land they farm is given to them by the community, but they do not have any titles for the land they live on. It is also a problem considering compensation. A Karen woman speaking at the Q&A session noted in this regard that “if the dam is built, they (refugees) only have the non-Thai card, not citizenship, so it will be unlikely that her and her colleagues will get adequate compensation or any mitigation measures provided by the government or dam builders” (Srisawaidaoruang 2014).

Srisawaidaoruang also proudly explained when asked about Internet accessibility, that the school grounds are a wifi zone, with everyone having access to it. Every household uses solar panels, and there is a landline village telephone, but many people have their own cell phones (Srisawaidaoruang 2014). These are not ignorant people who are

“stuck in their way of life”. They are connected, they want their children to be educated, they want a bright future for their families and the next generation. But they also want the next generation to be able to inherit their way of life. “Our livelihoods. Living in this village. Even though we have wifi, that doesn’t matter. What is important is that we live in our community like this. The tradition of this village is very, very important to us” (Srisawaidaoruang 2014).

## 7.4 The people’s connection to the Salween

The Salween is more than just a river flowing through the country to the sea. To many people the River is revered as the “sacred Mother of Rivers, who has provided for their basic survival needs – from food to herbal medicines – from time immemorial” (KDRG 2006, vii). Srisawaidaoruang, the leader from Ban Sob Moei village, agrees with this, saying that:

The River is holy to many of the peoples who live around it and survive thanks to it. There are festivals dedicated to the River, such as the ceremony to worship the spirit that protects the village, or March 14, which celebrates the extension of the life of the Salween River, as well as the forest surrounding it (Srisawaidaoruang 2014).

Thus, the River is of huge cultural and spiritual importance to various ethnicities on both sides of the border. During one of our trips to the villages, my friend played me a Karen song about the Salween River, composed and performed by the refugee band Equal 49 and translated it for me. This is what one of the songs verses says:

The Salween is our life, the Salween flows all the time, it is like the sign of the Karen. The river is part of our ethnic culture. We are working to support the river. We all have to work together to stop the dam from being built<sup>38</sup>.

Beyond its cultural and religious significance, the River literally represents life for many of the people living by its shores. As one of my friends from KESAN noted, “they (the villagers) can’t do any other work. The water dictates how they will do the agriculture. Also, if there is no electricity, they can still stay here. But if there is no

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<sup>38</sup> The full song text can be found in Appendix 3

water, they can't stay" (Interview 2014). Another informant from Kawkue village emphasized that "We cannot imagine a life without the river" (Interview 2014).

The River also represents a "final refuge": on both sides of the River, makeshift villages and refugee camps have been set up for those fleeing the conflict further inland. As a Reuters article notes,

Sandwiched between the SPDC troops and Thailand -- which already has 120,000 long-term Myanmar refugees and is loath to take more -- they see the Salween as a final refuge. If the waters rise, they have nowhere to go" (Cropley 2006).

As such, the River also then represents the final safe haven for thousands of people who have lived in fear and run away from ongoing violence.

### **What the locals use the Salween for**

As we will see further on, villagers rely on the Salween for a multitude of things: They rely on it for "fish, and the animals and plants that inhabit the rich jungles nourished by the river" (Zerrouk 2013, 73). In the words of a villager from Paung Township (in Mon State),

Normally, we do not have to spend a lot of money in our daily lives because we can get fish, crabs, herbs, nipa palm leaves, roofing materials and firewood from the river, and various kinds of vegetables, fruits and cooking oil from our farm. We can stand firmly on our land without money. We do not have to worry about a job, because we have full bins of paddy, a tank full of oil, fish in the Salween River, chicken and pigs at the house – we only have to buy salt from outside (MYPO 2007, 21).

As indicated then, the Salween River and its surroundings have provided people with everything they need to survive. In the group interview I conducted, one woman explained to me that the water is even used for drinking water since there are no wells around. "In the summer we can divert the water to our fields. There is no water in the well, ever. So everyone drinks from the river, not just humans, also animals" (Interview 2014). Not only that, but the Salween River is also important for when they stir the cement to build their houses.

In Ban Sob Moei village, a clear description of all of the uses of the River was provided to us:

From riverbank gardening, each family can produce around 100 kgs of dried tobacco, they grow it on the riverbank, and the cost is around 200 Baht<sup>39</sup> per kilo. So this is their major income. Vegetables are good for the health and for the school students that stay here as well. It is enough so that their children can study outside in other cities, for the education of their children. The Salween also provides sand for the construction so to generate income for them as well when the land communities use the sand for any house construction (Srisawaidaoruang 2014).

This emphasizes the importance villagers place on the Salween River for the future of their children. The construction of the dam will mean that villagers can no longer predict the flow of the River, something that they have grown accustomed to and is part of their daily lives. It can potentially have dire consequences for the downstream communities, who, as we have seen, rely on the River for every aspect of their lives.

### **How people view the damming of the Salween**

Having seen what the Salween River represents to many people and how it is utilised, we now turn to see how people may view the damming of the River.

One local villager went as far as saying that “The Salween River is our means of living. If the dams are built, it is the same as killing us. We depend on these mountains and rivers (Saw Nyunt Thaung 2015). Asked by local grassroots organisations during a protest against the dams, why they did not want the dams to be built, villagers responded “We do not want to leave our homes and live somewhere else. We love living in our own village. This dam will destroy our homeland”. Even if offered a new house, villagers were adamant about wanting to remain in their houses, in their villages and on the River (KESAN 2015). Local communities and internally displaced persons (IDPs) have admitted being concerned that the dam plans will lead to increased militarization, human rights abuses, environmental destruction and loss of local livelihoods (Boot 2013).

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<sup>39</sup> Baht is the currency in Thailand. 200 Baht roughly translates to \$ US5.90 or around 47 NOK.

## **The view from the ground: How the ceasefires have impacted the local population**

The ceasefires signing, despite the violations that have occurred, have had quite an impact on the local population. The KHRG has found that the ability to travel more freely has had the biggest impact on villagers' lives and livelihoods (KHRG 2014, 15). Moreover, fewer cases of forced labour have been reported. Another positive impact has been that villagers feel safer to report cases of land confiscation to local authorities, and have indeed taken up to report such abuses (KHRG 2014, 10). However, a consequence of increased peace in the region has also led to the construction and fortification of more army bases, something that has resulted in villagers feeling that the ceasefire is not sustainable and leaves them fearing for their personal security (KHRG 2014, 10). This correlates with the fact that civilians have still been arbitrarily detained, tortured, and/or killed if they have been suspected of collaborating or associating with an ethnic armed group (KHRG 2014, 15). Villagers have reported the "temporary or permanent confiscation of their land for army camps, dam construction, large-scale agriculture and mining projects since January 2012" (KHRG 2014, 16). This was often done through the use of government laws – such as the previously described "Vacant Fallow and Virgin Lands Management Law" - classifying the land as uncultivated or state-owned, with little or no consultation of affected communities (KHRG 2014, 16).

Thus, we can see that the ceasefire, whilst positive, still carries with it other undesired consequences, making it something of a catch-22 for local people. The decrease of violence and abuse is undoubtedly an improvement and has changed everyday life for many people. At the same time however, this also opens up avenues for the Tatmadaw and the government to increase their presence in these former no-go areas and increase infrastructure projects. This in turn can lead to land confiscation and the construction of such projects that are not necessarily wanted, or in the interest of local people.

## **7.5 Civil Society and ethnic armed groups' views**

Democratic regimes tend to allow more open activism and the freedom for people to voice their opposition to certain subject matters. Communities living under less democratic regimes may suffer more environmental insecurities due to the fact that they simply do not have the option to protest in any capacity (Simpson 2014, 56). Indeed,

before the opening of the country in recent years, open dissent was not tolerated in Myanmar. In order to counter this and continue their work, many NGOs either fled into the border regions where the central SPDC had less control (if at all), or would set up their headquarters in neighbouring countries, especially Thailand (Doyle and Simpson 2006, 755). Such NGOs then would often re-enter Myanmar incognito in order to undertake research. Simpson contends that, at least during Myanmar's authoritarian regime, environmental activism represented much more than the fight for a more sustainable and green future. It represented a form of resistance politics, "most often based around opposition to efforts by the regime to pursue environmentally and socially disastrous energy projects" (Doyle and Simpson 2006, 758). Thus, in the case of Myanmar, green issues were and are, inextricably linked to human rights, specifically the rights of ethnic minorities. It also opened up an arena for an entire generation of civil society organisations and representatives to be educated abroad and have close contact with other international NGOs also operating from Thailand. This however is an entirely different subject that could fill another Master thesis and is beyond the scope of this analysis. Suffice to say that working from the "outside" has also impacted civil society in Myanmar, which is now slowly coming back into the country and registering officially there in order to finally be able to operate legally.

Thus, despite decades of suppression and persecution, Myanmar has developed a substantial and diverse civil society network. Within the climate of political reforms, new spaces have opened up for grassroots and civil society actors to grow further and voice their opinions more loudly and openly. Moreover, a new law passed in 2011 which allows for protests, given they ask for permission five days in advance, has provided civil society with more opportunities to openly go against government policies and engage with local communities further. Some of the key demands they have brought forth is that of more transparency with regards to foreign investment and large infrastructure projects, and that consultations, compensation procedures and practices be put in place (Buchanan, Kramer, and Woods 2013, 37). It is the nationwide public disagreement about the construction of the Myitsone dam has been credited as inducing the suspension of the dam plans by the current government – a win for local civil society groups. And whilst the resources at their disposal so far are limited, anti-dam campaigners are trying their hardest to have their voices heard. For example, a group of

young people formed a pop group, Salween Angels, and recorded songs protesting against the dam's construction in 2006 (Parry 2006).

### **An example of local Karen civil society**

The Karen Environmental and Social Action Network (KESAN) was formed in 2001 by Karen activists from different organizations who shared a common interest in addressing the problems their communities face (ERI and KESAN 2003). It is the first Karen NGO of its type to “specifically focus on the relationship between social and environmental issues, [doing] so in a way that reflects Karen priorities” (ERI and KESAN 2003) . It does so by working closely with grassroots communities in order to promote the management of local resources through traditional means (ERI and KESAN 2003). This kind of participatory approach works by villagers and local communities coming up with a proposal, something which is then discussed by a development committee within the village community. However, in order to establish such a committee in the first place, KESAN works to empower villages and raise their awareness on such matters, encouraging them to become a team and then encouraging them to come up with their own ideas and plans for their community (Bright 2014). They work with local communities, train them and provide them with material, such as cameras, so that they can collect data on their environment (such as the various fish species in the Salween River) and analyse how things are changing (Bright 2014) – in what has also come to be known as Thai Baan Research (Sretthachau 2004).

Having worked mainly from across the border in Thailand until recently, they have been able to cooperate with other international organisations, such as International Rivers, and gain much information that perhaps would be inaccessible within Myanmar given the past restrictions. Thus, KESAN, amongst other things, goes to different villages close to the dam sites in order to speak with residents there and to hear what the situation is on the ground, as well as help inform people about what is happening and what their rights are. Moreover, KESAN organises various protests and events to voice local people's opinions about the possibility of dam construction on the Salween. Such gatherings have been held for some years now, especially marking the International Day of Action for Rivers Against Dams on March 14<sup>th</sup>. Together with the organisations of Burma Rivers Network, Karen River Watch and Salween River Watch, among others,





**Picture 4 - Villagers protesting alongside environmental groups against the building of the Hat Gyi dam on the International Day of Action for Rivers and Against Dams. Source: (Karen News 2015a)**

KESAN has initiated multiple big campaigns against the Salween dams. One such project has been the collecting of 61.000 signatures and 131 civil society organisations against the Salween Dam Project and subsequently sending an open letter to the Government of Thailand, Myanmar's Ministry of Electric Power and the Chinese Government (Nyein Nyein 2015). Another event organised by various civil society organisations was the "Save

the Salween", held in late March 2015 in Hpa'an and which aimed at bringing together "local river-reliant communities environmental experts, and the general public for panel discussions, an art exhibition and a field visit to a Karen village that is likely to be affected by proposed hydropower projects" (Nyein Nyein 2015). One of the demands voiced by community based organisations is the inclusion of discussions about the dam projects be put on the table in the peace negotiations between the KNU leaders and the government and make it a priority (Karen News 2015b). Given the evidence, it is not hard to see why such discussions are vital in the future. As stated by Paul Sein Twa, director of KESAN:

Local people do not want any dams on the Salween River, especially in Karen State, without the free, prior and informed consent of impacted communities. The government and the Karen National Union need to broaden the decision making process so that it is transparent, inclusive and democratic (Mang and Yan 2013).

Political negotiations between the KNU and the government must address the issue of local ownership of resources (Saw Khar Su Nyar 2012). Such campaigns and cooperation between different civil society organisations are not limited to Karen State, with many organisations from different ethnic groups joining forces and working together to save the Salween. Internationally, a petition has been sent to Thailand's National Human Rights Commission over human rights abuse allegations regarding the Hat Gyi and Tasang Dams on the Salween (The Nation 2014).

## **Civil society abroad**

However, it is not only within Myanmar that civil society groups have joined forces to protest the dam constructions on the Salween. Both in China and Thailand, civil society actors have become involved in debates surrounding the Nu and Salween dam debates (Magee and Kelley 2009, 130). In 2005, 15,000 members of the Karen ethnic group living on the Thai side of proposed dam sites signed a petition opposing the Salween River dam projects and urged regional and international communities to join their protest (TERRA 2006, 3). Further international campaigns have taken place, including protests in front of Thai embassies in various cities around the world, as well as petition letters being sent to the Minister of Energy in Myanmar and the Thai Prime Minister.

Moreover, the debate around the Nu River dams has grown over the years, with academics and average citizens taking part in debates around the subject, which in the past resulted in the originally proposed dam cascade being halted (International Rivers 2008, 23). China had already considered plans to construct 13 hydropower plants on its portion of the river since the 1990s, but those plans were halted in 2004 by China's President Wen Jiabao, with what has been described as a great victory for the Chinese environmental movement (International Rivers 2014b). Environmentalists were however taken aback when the Chinese government announced their intention via the new Energy Development Plan, to build several controversial dams that had previously been suspended, including five on the Nu River, starting in 2015 (Yan 2013, 1). Indeed, only last year an expert panel<sup>40</sup> has already all but green-lighted the first dam by agreeing that a pre-feasibility study for a dam in Tibet met the needed requirements (Aredy and Jie 2014). The result of the cumulative impact of these dams in addition to the ones planned on the Myanmar portion of the River has not been assessed as of yet, but could prove to be severe.

## **How the ethnic armed groups view the dam**

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<sup>40</sup> Comprised of the China Renewable Energy Engineering Institute, Tibet's economic planning department and associated organisations

Although my data and sources are limited, the ways the ethnic armed groups operating in the area view the dam construction seem to vary considerably from battalion to battalion<sup>41</sup>. During this year's International Day of Action for Rivers and Against Dams event organised by Karen civil society organisations, Lieutenant from KNLA's Brigade 5 Saw Eh Roe announced to the protesters:

We stay in the dam area and prevent it from happening for you. You are our parents and we are your children. Therefore we are doing our part to try and stop the dam for you! (...) If the companies try to force their dam projects in conflict areas, they will be in danger as well. Therefore, I want to tell them to avoid coming here will be best for them (KESAN 2015).

In the same vein Captain Thein Whin from the DKBA has stated with regards to the Hat Gyi dam that "There is no benefit for the civilians if the dam is built. There will be a bit problem for our Karen people, for the civilians and also for the resistance. That is why we oppose it. We have to stand for the majority" (Karen News 2015b).

In an interview with Karen News, General Baw Kyaw Heh from the KNLA discussed the consequences of the Hat Gyi dam (among other things), saying that "The connection between military operations, dam security and the number of refugees and IDP's is clear to us – but they will never acknowledge it" (Karen News 2014a). He continued stating that

There are no proper mechanisms in place to ensure that benefits will go Karen people or that, problems will be avoided or solved. When there is still no rule of law, how can anyone be sure that the impacts would be protected against? (...) Conflict over this dam has already started, restarted and restarted again. The dam plans were born in war. They are part of the military strategy to consolidate control over the Manerplaw area where the KNU and democratic alliance forces were headquartered. (Karen News 2014a).

These different statements from various ethnic armed groups operating around the Hat Gyi dam site area have been taken from local newspapers. Whilst it is impossible to truly gauge to what extent these statements are provided to gain popular support and are

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<sup>41</sup> It would seem that the KNDO, the DKBA and the KNLA support local opposition of the dams (KESAN 2015; Karen News 2014b; Karen News 2015).

actually followed through on, they do indicate an awareness around the subject matter and the deeper consequences of the dam construction in general.

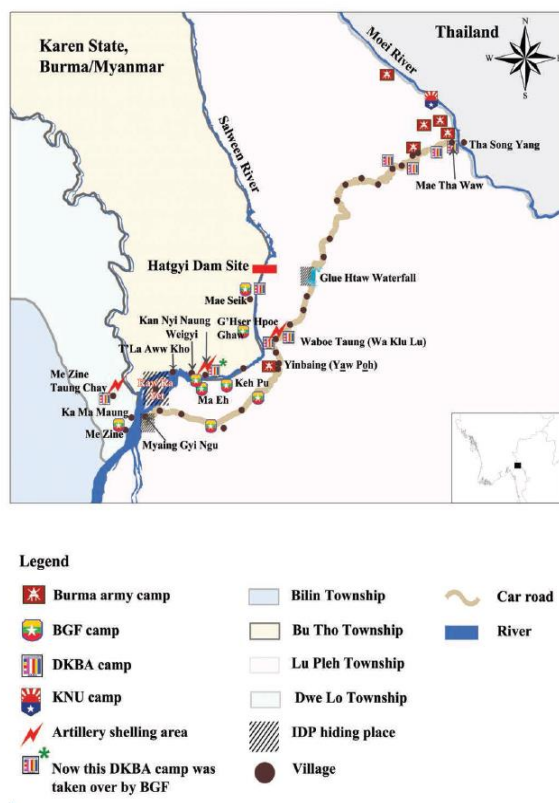
Having a full overview of all the relevant actors involved and their interests behind damming the Salween and how local communities feel about it in comparison, a joint analysis of all the above information will be provided in Chapter 8. Both the international and national/local dimensions will be taken into account and will be examined through a political ecology lens.

## 8 The Hat Gyi Dam as conflict multiplier

*“If there is a political will for peace, water will not be a hindrance. If you want reasons to fight, water will give you ample opportunities” – Uri Shamir, Israeli hydrology professor (Olsson 2012, 13).*

Whilst the ceasefire agreement between the KNU and the government has been in place since 2012, resulting in a decrease in clashes, they have yet to abate completely. In fact,

recent reports do not suggest much of an improvement, as we can see in Map 5. What the map also demonstrates is that much of the fighting is carried out in the vicinity of the Hat Gyi dam site. As Sai Khur Hseng mentioned, whilst the dam itself cannot be said to cause the outbreak of violence per se, one does have to ask “why is all the fighting concentrated by the dam sites?” (Sai Khur Hseng 2014). Indeed, the government’s efforts to “step up military protection around large scale economic projects were the decisive factor” in the recent outbreak of violence and the breakdown of the ceasefire between the KIO and the government (MPM 2013, 3).



**Map 5 - Map of the Conflict area around Hat Gyi Dam Site. Source: (KRW 2014, 6)**

In recent months more and more government troops have moved into areas of the Hat Gyi dam site, clashing with local ethnic armed groups and violating the ceasefire agreements. Additionally, there have been claims by both refugees and aid groups that the government’s military troops are responsible for forcibly removing thousands of villagers around the dam sites (Gray 2015). Multiple civil society groups have expressed their concern that there is a link between the on-going conflict and the dam

(Macan-Markar 2009) (Win 2014) (Karen News 2014b). KNLA general Baw Kyaw Heh has said that "it is clear that investment in Hatgyi and similar projects are obstructing the peace process in Myanmar, particularly in Karen state" (Win 2014). Others report threats being made by the Burma Army towards ethnic armed groups, warning them that they will be "wiped out" from the Hat Gyi dam area (Karen News 2014b) (Naing 2014). This has led both civilians and ethnic armed groups to question whether the government is interested in peace, or in natural resource development (Mang and Yan 2013): "The increased Burma Army security around the dam sites and blatant disregard for concerns of impacted communities are heightening tensions, and throwing into doubt the government's sincerity in conducting ceasefire talks" (Saw Eh Na 2012). Exactly how delicate the situation is and how easily this can result in further armed conflict is exemplified by a statement by a Quartermaster from the KNDO who stated that

After the KNU leaders signed a ceasefire, Burma Army troops increased their activities in Ler Mu Plaw, Pa Gaw, Papu, Mae Ka Hta. They sent more soldiers and supplies. The Burma Army also sent more troops and one more battalion of Border Guard Force (BGF) to Hatgyi at Mae Pa. This forced us to respond by sending more of our troops to the dam site and to other places (Saw Eh Na 2012).

This demonstrates how a continued "tit-for-tat" militarization of the area could have dire consequences for local people and result in further bloodshed. It also indicates the increased risk for local people, with the risk of human rights violations rising in parallel to such militarisation. Local residents from around the Hat Gyi dam site have reported to KRW that the recent fighting in the vicinity of the site has been motivated by plans to build the dam, with one resident saying that "BGF soldiers had told him that construction of the dam must begin in 2015 or 2016" (KRW 2014, 11). This pressure to begin construction, which may have to do with certain legal issues within the MoU agreement, may only put more pressure on the Burma Army to expedite the process and "drive out" the ethnic armed groups in the area at a faster degree, which carries with it very serious consequences amid the national ceasefire negotiations and for local residents. Until now, already 50.000 people are said to have fled the Hat Gyi Dam area (The Nation 2014).

This is moreover linked to the usage of the Hat Gyi dam as a tactic by the government forces. According to Saw John Bright,

The government would like to cut the transportation, the access of ethnic communities from place to place. Many people use the river as a form of transportation; it is very good to travel from place to place, to travel from one ethnic area to another. There are so many mountains, so it's very hard to travel otherwise and so river transportation is really great for them. If you build the dam, then you have no more access to go from place to place. I am ok with saying this: I believe the government has a military strategy to cut the transportation and kind of things like that, because the ethnic armed groups control the area. So if they build the dam, the upstream will be flooded, making it impossible to travel from for example, Karen to Karenni State, or from Karenni to Shan State. Another thing is that when they build a dam, they will of course need security, so in the name of security, the Burmese troops will come and take over the area and then expand. These are the main things we are worrying about (Bright 2014).

### **The Hat Gyi Dam and the issue of decade long relocation**

Given all the statements from EGAT concerning mitigation processes of the dam construction and the public participation promulgated by it (as presented in chapter 6), there have been few consultations on the Myanmar side of the river and none of the measures described seem to have been implemented by EGAT. Whilst no one truly knows the extent to which construction has actually begun given the secrecy surrounding the project, the consequences have already been felt by villagers residing close by. To the ethnic communities living by the riverbank, these dam projects have come to “symbolise violence, anxiety about the future and a tool used by authorities to secure a greater grip over their lives” (Gray 2015). Whilst one KNLA captain has even been quoted as saying in 2006 that “if they build the dams, the KNLA will have to fight” (Cropley 2006), other minority leaders are quoted today as stating that tensions arising over the dams could “even re-ignite civil war in Myanmar” (Gray 2015). These statements exemplify the fragility of the ceasefire and that these large projects are in no way ‘neutral’ and development inducing.

Already in 2006, Baxter reported that according to reports by the United Nations High Commissioner for Refugees (UNHCR), 2000 Karen had fled across the border to Thailand within a three month period. In contrast, KHRG reported that another 20,000

people had been forced to flee their villages and become IDPs (Baxter 2006). This claim is supported by accounts from the former executive vice president of the Thai construction firm MDX, Suphajee Ninubon, who stated that “immediately following the signing of the MOU, 20,000 local residents in the Hat Gyi Dam area were relocated from their homes” (Simpson 2007, 549). This demonstrates that the impact of the Hat Gyi dam stretches far longer than just the years that it will be physically constructed. The battle for the area surrounding it has been going on for decades and has impacted a vast amount of people, many of whom will never be able to return to their homes and will not be part of any compensation offered by either the government, or EGAT. What is more, KHRG also reported that not only were people forcibly relocated, but they were subsequently used as forced labour to build the access roads near the dam site (Baxter 2006).

### **Many actors, many opinions and many interests**

This demonstrates the power struggle between the ethnic armed groups and the government over control of land and natural resources. One way of exerting power is controlling access to a diversity of resources. The government is attempting to manage who exploits those resources in Karen State, the conditions they are exploited under and for what purposes they will be used (Bryant and Bailey 1997, 40). The KNU and DKBA on the other hand are attempting to prove that the government in fact does not have the authority to do so and are stipulating that they should be the ones to wield the power in this part of the region.

However, what confuses the picture even more is the multitude of actors who have stakes in this project and who all serve different interests. There is no such thing as one united KNU or DKBA. As we have established, multiple commanders run their own sub-divisions within the armed groups and may not always align with the overarching policy of the KNU for example, but rather serve their own interests. Many of the civil society members I spoke with mentioned that whilst generally the KNU might be opposing the dam construction, other battalions have already signed concession deals with the government in exchange for them supporting the project. “Some groups work with the government. So that’s the problem. The armed groups still control the area, but some work with the government” (Bright 2014). Moreover, due to the sensitive nature



of such concessions and agreements, no information is provided, which only serves to confuse matters even more. As Sai Khur Hseng mentioned, “there is no transparency for these projects, because they don’t publish anything. We don’t know what they agree on” (Sai Khur Hseng 2014). So, even though we might say that the ethnic armed groups largely control the areas and exert the power, we can see that that is in fact not necessarily the case, which in turn has consequences for existing power relations between established actors by bringing in new players. This can potentially weaken the KNU’s position vis-à-vis the government, as well as carry with it negative consequences for local villagers who once again will not have been part of any decision-making process in something that will affect their livelihoods and will only lead to further insecurity for them.

Another problem we encounter in Myanmar generally, but which also has implications for the Hat Gyi dam, is the government’s lack of control over the Burma Army. Whilst the government does hold the power in general terms, they

don’t have as much power as they should have due to the structure of the military, where regional commanders basically operate on their own, controlling their own armies, their own crops, and have their own mini-economies in the areas where they’re commanding, and so a lot of the time the central government is not commanding those regional commanders as tight as they should (Brennan 2015).

Even President Thein Sein has stated several times that he has ordered the Tatmadaw to cease an offensive with army commanders ignoring the order and continuing attacks against ethnic armed groups regardless (Buchanan, Kramer, and Woods 2013, 11), making the lack of civilian oversight an ever more pressing issue.

### **8.1.1 Actors and their power**

Identifying power and the various ways it is obtained, exercised and resisted by different actors when it comes to resource governance is crucial for the analysis of dams and conflict in Myanmar. This section summarises the position of the various actors involved in the case of the Hat Gyi dam, and their interrelations. .

As we have seen in Chapter 6, China has quite the incentive to invest in hydropower in Myanmar, and particularly the Salween River. It is also an economic powerhouse,

providing it the necessary financial backing to actually invest in these billion dollar construction projects, which could be said to provide China with all the power vis-à-vis the Myanmar government in this regard. Simply put, if China is not happy with a deal, then no money, no investment, no dam.

However, let us put this hypothesis to the test. In a controversial (for the Myanmar government) move, President Thein Sein decided to suspend the Myitsone dam project on the Irrawaddy River valued at nearly US\$ 4 billion and funded by China (Ling 2015) due to “public backlash over the dam’s social and environmental impact” (Motlagh 2012). This was hailed as a milestone for Myanmar and its democratization efforts. Indeed, looking at China’s response, one can see how the backlash from such behaviour could truly sour relations and impact trade between the countries: Up until 2012, China was Myanmar’s biggest trade partner (Ling 2015), yet since the suspension of the Myitsone dam, analyst Yun Sun has commented that China had “suspended almost all new major investment in Burma” (Yun Sun quoted in Boot 2014a). Whether this has been explicitly due to the Myitsone dam incident or China’s internal economic woes is debatable, yet the fact remains that China has apparently lost its number one spot as Myanmar’s main investment partner. Given Myanmar’s still fragile economic state, one might say that Thein Sein played a risky gamble and lost much needed investment, resulting in a negative outcome for Myanmar. However, things are not that simple. In fact, Myanmar holds quite a few aces of its own up its sleeve. Myanmar, due to its vast and still much uncharted natural resources, has become a much sought after partner for many Western nations ever since it embarked on its road to democracy, in effect meaning that Myanmar, in theory, does not have to solely rely on China anymore in order to provide infrastructure investments. This is not to say that China does not play a role in Myanmar anymore, or that relations are frozen with trade plummeting completely. It is simply to showcase that Myanmar has other options available now, options it did not have five years ago when the country still suffered from sanctions. Moreover, according to Ling, media have been reporting that “the country, since halting the Chinese dam project, has switched toward Britain, France and Norway, seeking cooperation with renowned multinational firms with good quality equipment and strong capital for its new hydropower projects” (Ling 2015). Thus, the argument that money alone equals power when it comes to China’s role in Myanmar is too simplistic and does not necessarily carry weight.

Whilst Thailand is also an investor and main beneficiary of the Hat Gyi dam, theirs seems to be a more symbiotic relationship with Myanmar than one where one holds more power than the other, especially after the military coup in Thailand in 2014 which has left Thailand more isolated than before and looking for friends and allies – among which neighbouring Myanmar. Again, Thailand may invest in the dam, without which the construction would not be financeable, but it also reaps many benefits from the arrangement. Not only will they receive 90% of the electricity generated, but it would also seemingly benefit them if the Myanmar government utilised the dam construction for tactical reasons in order to weaken the KNU. This is due to the fact that Thailand has been the one hosting most IDP camps and refugees fleeing the on-going conflict in Karen State.

However, at the same time, it is exactly the fact that China, Thailand, and indeed the whole South-East Asian region, are so energy-hungry that is one of the most important drivers behind the Myanmar government's push to build such large dams as the Hat Gyi dam. Moreover, regional organisations, such as ASEAN<sup>42</sup>, are pushing for such projects as the ASEAN Power Grid, which hopes to establish interconnecting arrangements for electricity, and will also utilise the GMS interconnection initiative to provide the region with more cheap and clean energy, courtesy of Myanmar's and Laos' hydropower potential (Nicolas 2009, 23). The World Bank has stated that Myanmar has the potential of being the energy bridge between South Asia and ASEAN energy system (World Bank 2008, 63). Former EGAT governor Rattanopas even went as far as stating that "the dream of the ASEAN power grid cannot be realized without the Upper and Lower Salween dams" (Salween Watch 2004, 25). Moreover, ASEAN also has a programme area focusing on renewable energy in order to "increase the diversity of energy supply and to reduce the environmental impact of energy use in the ASEAN region" (ASEAN 2010, 21). Myanmar's large hydropower potential can play a big part in achieving ASEAN's goals with regards to renewable energy.

Thus, it may be concluded that the Myanmar government holds considerable power in the region. Myanmar has the advantage at the moment that after years of sanctions and

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<sup>42</sup> The Association of Southeast Asian Nations, established in 1967 and currently has 10 member states, namely Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore and Thailand (ASEAN 2009). It represents a cooperative framework intended to foster greater regional development through mutual assistance.

isolation, the potential within the country is enormous, something recognized by the international community. Myanmar is the new “popular kid” in the region, with lots of work still ahead investment-wise, but also a lot of untapped potential. More than that, its geostrategic positioning between China and India, and the gateway to the ASEAN region in addition to its natural resources makes it stand out when it comes to making “new friends”. What is more, as we have seen, the decentralization efforts within Myanmar are on their way, but still far from full-fledged federalism, allowing the central government to basically still exert control over the majority of important and large scale decisions in the States and Regions. Thus, the central government has the power to decide to build dams, and where these dams will be built, whilst at the same time stating that such projects are done in the name of development. However, development as a term in and of itself is not always as clear-cut and positive as we have generally come to believe. Adams notes that “development itself is a product of power relations, of the power of states, using capital, technology and knowledge, and the market to alter the culture and society of particular groups of people” (Adams 2009, 198). He emphasizes that development is about control of nature and of people and that it creates losers as well as winners (Adams 2009, 198). As prevalent in the case of the Hat Gyi dam, “those who drive change co-opt or reflect dominant ideologies and often draw on financial capital from outside interests” (Adams 2009, 199). Thus, development can obviously benefit people and is a necessity in building a nation, but with it comes power; power to decide over what will be developed, what industries, where these industries will be put up and who will lead them. Moreover, what some may dub development, local people may view as the destruction of their livelihoods and homeland.

Another aspect of power, as noted by Bryant and Bailey, is “about attempting to avoid or at least minimize the costs associated with the manufacturing process” (Bryant and Bailey 1997, 40). In this case, this power could be said to lie with the Chinese and Thai governments and companies, since they determine – with the help of the Myanmar government – the location of the dam sites, and build the dams (with all the environmental and social impacts and costs that may bring with it) in Myanmar, whilst receiving the finished clean energy product.

Another important actor not to be discounted is the ethnic armed groups operating near the project site. The history of the KNU and its long opposition to the government are important tools for understanding the current conflict and why the KNU opposes the dam construction. Not only does it go against their belief that Karen State and its resources should be handled by the Karen people, but the Hat Gyi dam threatens their very existence and source of power by cutting off the important gateway they have to Thailand. Through armed conflict, the KNU has been able to stand its ground to an extent against the central government. Indeed, one of the reasons why construction of the Hat Gyi dam has been delayed for so long has been the ongoing conflict between the two sides and the impact that would have had on the construction and security for the workers there (Schroeder and U 2014, 211). Thus, the ethnic armed groups do have a certain advantage in being able to destabilize the area enough to halt construction. This form of power then is predicated on actual brute force rather than anything else. However, at the same time, the KNU acknowledges the detrimental effect the conflict has had on the local population.

Grassroots and local villagers are not helpless bystanders in this debate. Whilst the actors involved are powerful and plentiful, they too have tools they can utilize in order to protest the dam construction, albeit to a lesser degree than other actors. As we have seen, many civil society groups are active within and outside the borders of Myanmar, working together to inform people about what is happening and aiming to protest the current plans. Whilst civil society opposition in China against damming the Nu/Salween River there was successful in the past, the future for those dams is still unclear given the news that plans to build at least some of those dams have resurfaced. In Myanmar, the civil society organisations, such as KESAN and Shan Sapawa, are working on information sharing, both with local villagers, but also with the government, in an attempt to bridge the gap between the two. However, this information sharing can also be considered as exerting power, especially towards the local population. This is not to in any way diminish the work such organisations are doing on the ground, but it simply serves to demonstrate, that everything bears implications and potential power relations. Representing people's only source of information is a huge responsibility and one must then be careful as to where information comes from and from whom. Since local people are so dependent on civil society organisations for receiving information on the dams, this positions such organisations as potentially powerful mobilizers and influencers. On

the other hand, without such organisations, local people may stay in the dark about any such plans and only hear about it once they are asked to move, as has been the case in the past. Armed with the support of local civil society organisations, people have been staging protests against the dams and publicizing them in newspapers and online in order to showcase their disagreement in hopes of stopping construction, especially when there have been no consultations beforehand.

### **8.1.2 Participation**

The importance of participation and the power it can have for those impacted by various development projects are vital in order to not only guarantee success, but also that it will actually be beneficial for everyone involved. As noted by Arnstein, participation can be seen as “the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future” (Arnstein 1969, 216). Participation in the context of the Hat Gyi dam is of great importance for understanding power relations, as well as being able to better discern the beneficiaries of the dam construction in comparison to those who will suffer the consequences. It offers a perspective often overlooked by policy-makers (Scudder 2006). Hickey and Mohan note how the concept is in general terms associated with terms such as “empowerment” (Hickey and Mohan 2005, 237) and stipulate that a general agreement has emerged on the fact that that “some form of participation by the beneficiaries is necessary for development to be relevant, sustainable and empowering” (Hickey and Mohan 2005, 237). In the case of dam construction, Scudder – in analysing 50 different dam projects worldwide – found that “resettler participation (in the decision-making process) had a significant influence on the outcome of the resettlement process” (Scudder 2006, 68). He goes on to say that

at the very least, involving resettlers requires not just their active participation in decision-making, but also the involvement of their expertise and their lifestyles. Participation should start during the options assessment process because that is when the environmental, social and equity implications of various options will be first considered (Scudder 2006, 88).

He also notes that negative outcomes of resettlement can be avoided, since there have been recorded instances of positive outcomes have occurred, citing the Aswan High

Dam in Egypt and the Pimburetewa in Sri Lanka as examples. In both instances, success “was related to the resettlers’ incorporation in a downstream irrigation scheme” (Scudder 2006, 74).

Moreover, Scudder emphasizes that a large dam should not be built, where

a participatory planning process involving the full range of affected stakeholders has been neglected and where the efforts have not been made to avoid mainstream dams and dams that threaten cultures and require the resettlement of thousands of people. Such conditions would, for example, stop the construction of further dams on the Mekong, including those within China. They would also avoid the construction of dams along the Amazon and the Salween River (Scudder 2006, 299).

Dr. Brennan also emphasized that considering the question of dams in conflict areas in Myanmar, “it was the thing that if we didn’t get it right, it was going to blow up in the face of the ceasefire agreement” (Brennan 2015). Speaking of the example of the Myitsone dam in Kachin State he noted that “this is what happens when you build infrastructure without community consent and tangible engagement and community participation in the development and construction of it” (Brennan 2015).

Grassroots organisations in Myanmar, such as the KRW, have indeed said that the lack of “a consultation with local populations and no provision of relevant information” was worrying local people (Saw Nyunt Thaung 2015). A consequence of this lack of participation and “decades of displacement and seizure of [village] land without [paying] compensation, the destruction of the local environment and militarization by the Burma Army and its militias to occupy areas near dam sites” may well be increasing human rights violations (Saw Nyunt Thaung 2015). KESAN’s director, Paul Sein Twa, has also emphasized that local villagers will not support the dam construction without FPIC, stating that

Local people do not want any dams ... without the free, prior and informed consent of impacted communities. The government and the Karen National Union [ethnic rebels] need to broaden the decision-making process so that it is transparent, inclusive and democratic (Irrawaddy News 2013).

Yet, as we have seen in the various case studies here, not only are local communities not involved in the planning and decision-making process, they have not even been

informed by the government or the construction companies involved about a large dam being constructed on the Salween River.

Saw John Bright from KESAN in a similar vein, noted that

It's just business as usual. There have been no improvements. No public consultations. They don't work with the FPIC principle. Just now<sup>43</sup>, the government announced they held a press conference on the biggest dam to be built on the Salween (Kunlong dam). They said that that was a consultation. But actually this is not a consultation. They just come and talk about their plans (Bright 2014).

Khant Zaw Aung mentioned something similar when asked whether more consultations would make a difference in public opinion about the dam. He said that "Some agree and some disagree, so if the government would hold consultations, they would only share information about the advantages of the dam. So that would influence the community" (Khant Zaw Aung 2014). A villager from Baw Traw Village, which also lies along the River in Karen State emphasized: "We live in this area, but we did not know anything about the process and how the dam will benefit us and how it will impact our lives" (Karen News 2015b) further indicating the stress and anxiety related with such project implementation.

This was again echoed in what Sai Khur Hseng mentioned about government consultations concerning large dams. He noted that in Shan State the government held one consultation where they held a presentation only presenting the positive impacts of dams:

It showed that dams were good. They said two villages would be affected by the dam. When I went there, there were many more than two villages affected. And they said that only 245 people would be affected. But, the two villages already make up more than 400 people. I don't know how they calculated it... (Sai Khur Hseng 2014).

What this demonstrates is not only a huge lack of trust towards the government from civil society members, but also a lack of engagement from the central government. Reasons for such lack of engagement may be that government officials genuinely

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<sup>43</sup> December 2014



cannot understand why local people would not support such a project, or it could also be linked to the large sums of investment involved in such projects.

In response to the lack of public participation in the decision-making process and the strong resistance exhibited by villagers alongside the Salween River, grassroots actors have called on all large-scale economic investment to be suspended during peace negotiations, and that both the government and the KNU have to first address such issues as local ownership of natural resources before proceeding with the projects (Burma Partnership 2012). So far, this has yet to be done.

Others suggest that government officials have started to pay more attention to such grievances and listening to local voices more. This sentiment is echoed by Dr. Brennan who noted that “there is a lot of good stuff happening” with for instance Snowy Hydro, an Australian company, doing consultancy work on one of the dams and are basically “staking their reputation on doing good assessments, environmental and impact assessments and the like, on these dams” (Brennan 2015). However, he also mentioned that things are not being done in the right order: “The ceasefires have to come first before the dams can” (Brennan 2015).

A lack in consultation with and participation of local residents in such large development projects may result in negative consequences – mainly for those same local residents (Scudder 2006, 61-62). However, in this case, the lack of participation is being done in an active conflict area (despite the ceasefire agreement in place), which increases the volatility of an already shaky ceasefire agreement.

### 8.1.3 To dam or not to dam?



Picture 5 - Source: Reuters (Boot 2012)

We have now been introduced to the long history between the Karen within Myanmar and the long-standing civil war between the KNU and the central government. I have shown that energy and electricity are vital to a nation's development and that Myanmar has

abundant natural resources to garner said energy. We have also seen the various stakeholders in the construction of the Hat Gyi dam, what their motives are, what they stand to gain and/or lose, and how they have been going about addressing the issue. Moreover, we have seen that indeed environmental issues in Myanmar cannot be understood in isolation from the economic and political contexts within which they are created. When analysing the damming of the Salween and its link to conflict, Dr. Brennan notes that “resources are obviously one of the key driving forces of conflict. And along the Salween, an untapped river in a country that doesn’t have great electrification, the dams were an inevitability. China was coming in, that was always going to happen” (Brennan 2015).

Despite this inevitability, one of the main things criticized when looking at the Hat Gyi dam is the fact that the entire process is “not being done right” (Brennan 2015). Hydropower has undeniable advantages and could potentially help electrify the entire country. And people want electricity. As Sai Khur Hseng mentioned, “if we ask local people, do you need electricity? They will answer ‘we need it!’” In the same breath he however also said “but can we get enough electricity if we build the dam?”, underlining the lack of benefit sharing that has been prevalent in the process of dam construction in Myanmar so far. The problem with initiating such a large project with such enormous consequences for the people living in the region when the ceasefire is still so shaky brings with it stark problems and influences the way people may view the central government. As has been made clear throughout this thesis, yes, a ceasefire is indeed in place, yes, negotiations are on-going, but no, there is no concrete and lasting peace in Karen State as of yet. What has come up in many reviewed articles is the question of how it can be expected to build up business when there is still no signed peace agreement in place? Moreover, how can dams be constructed when the majority of the rural population in Myanmar is heavily dependent on rivers and streams for both their livelihoods and their culture (BEWG 2011, 53)? What is being lamented is the fact that people perceive the government as favouring business opportunities over peace (Eh Na 2013). As a veteran Karen insurgency leader stated in another study, “For development to work there must be good government, transparency, rule of law, reliable administration and institutions and no corruption. If they come in now, it will just enrich the generals and their cronies”, with ethnic minority leaders agreeing that the government is wrong to continue the planning and construction of such mega-projects

“projects before reaching an equitable political resolution to the longstanding conflict” (Gray 2015). KNLA’s chief of staff General Baw Kyaw Heh stipulated

The connection between military operations, dam security and the number of refugees and IDP’s is clear to us – but they will never acknowledge it. If they don’t then how can this hydropower development not harm the peace-building process? There are no proper mechanisms in place to ensure that benefits will go to the Karen people or that problems will be avoided or solved. When there is still no rule of law, especially in the recent and ongoing conflict areas, how can anyone be sure that the impacts would be protected against? There are not even good laws or proper social and environmental policies (Eh Na 2013).

There are still multiple problems and questions to be answered about the dams, among which facing the consequences of the past and the question of forced relocation for example. Forcibly moving people from their homes, as has been the dominant strategy in the past, has dire consequences - both for the local population, and the state. One example of such a consequences from an environmental perspective is, as grassroots organisations such as KESAN and Earth Rights International (ERI) stipulate, that communities that have been forced from their homes or left out of fear for their lives and who have essentially become IDPs due to the dam, are forced into utilizing environmentally destructive practices such as “slash-and-burn cultivation methods. This is done instead of their more sustainable and traditional rotational techniques, merely to feed themselves” (Doyle and Simpson 2006, 756), which in turn may lead to ecological deterioration due to “poverty, exploitation and inequality”, as stipulated in political ecology (Jones 2008, 672). As Saw John Bright mentions,

Villagers who deal with the river depend on fisheries, and then villagers who are a little higher up in the mountains they do plantations through rotational techniques. However, right now they don’t have much place to shift to, so that’s a problem, since there are companies coming in and buying up land to use for mining and other activities. So when they make a plantation in the area for one or two years, and they try to move to another place, at that time the company has already come in to do its business activities without villagers knowing about it, how can they continue and earn their livelihoods? It leaves villagers with nowhere to go.

This illustrates the importance of having proper laws and practices in place before industries move in to ethnic minority areas and also spells out the possible consequences for environmental degradation if they are not in place.

Moreover, all these big hydropower plants are not necessary needed to help electrify the country, even if they had been conceived for that purpose instead of export (Sai Khur Hseng 2014). According to Sai Khur Hseng, implementing such large dams could be avoided if the government invested more into repairing and renewing old dams already built and repair the transmission lines (Sai Khur Hseng 2014). Saw John Bright from KESAN agrees by stating he thinks it represents a very possible solution:

We support off-grid solutions. Because all of these kinds of mega-dam are about centralizing power, controlled by central government, and connected to the national grid. This power is then controlled by the government and whatever they want to do with it, they do. That is not what we want. We want to have electricity, we want to have source of power that is useful for people, only for domestic use, not for big industry. All this kind of mega dam is for industrial development, not for the people. That's the problem (Bright 2014).

Many other organisations in Myanmar, most prominently REAM Myanmar<sup>44</sup>, are building up and promoting the use of renewable off-grid energy sources to help electrify the country in a sustainable manner. However, the National Electrification Plan (NEP)<sup>45</sup> only considers such renewable off-grid solutions for a limited amount of remote villages, preferring to invest in more large dams and other forms of energy production and electrify the entire country by 2030.

In response to the argument put forward by Sai Khur Hseng, Brennan noted that yes, Myanmar has all the necessary ingredients already, but at the same time they are trying to build up their economy and country. Moreover, from a geopolitical point of view, Myanmar is trying to balance the investment coming in from the West and from China, something which their natural geography allows them to do. By being China's entry point to the Indian Ocean, Myanmar has a huge power advantage. Like Russia,

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<sup>44</sup> Renewable Energy Association Myanmar whose mission is to promote and provide rural development and Environmental Conservation via Renewable Energy Technology (RET).

<sup>45</sup> For more information on Myanmar's electrification, energy sources, as well as the NEP, please refer to Appendix 5

threatening, or actually going through with turning off the taps when it comes to oil and gas pipelines to Europe, so Myanmar can do the same in the future to China.

This is of huge importance. So in the long term, I think it's a really good move to be doing hydropower and become Southeast Asia's hub of electricity, particularly if they aren't using it in the short term. So building this for the long term future of Myanmar and the short-term geopolitical stability it could provide, is a wonderful strategic move. But it just has to be done right and in an environmentally sound way and in a way that brings people together, not tearing them apart. And at the moment we're seeing the latter rather than the former (Brennan 2015).

To be sure, there does seem to be a change in attitude from the central government as of late, with Dr. Brennan, NVE and other organisations having commented on the fact that the government does indeed seem to want to “get things right” and do things the right way from now on. Supporting this argument is Myanmar's wish to join the MEITI so soon<sup>46</sup> and it wanting to draw the “most stringent EIA laws” according to an informal discussion I had with a lawyer at the Conference in Chiang Mai. Moreover, the Myitsone dam issue provides a further example of the government's “new attitude”. Whilst conflict has broken out in Kachin State, in large part due to discussions over said dam<sup>47</sup>, Brennan remarked that

The Moratorium on the dam was huge in Kachin State, and that was a blow to give to China. In a way what they were hinting at was for China to back off and give them the time to consolidate power and take things slowly. And that was the biggest concession that the government has given in the whole ceasefire process. They (the government) could have gone in and done it the “old way” - by force, something which a lot of people wanted to do. It was a concession in that, ok, yes, the government's hands were tied, but they still could have gone in full force. In not doing so, it opened the space for a bit more dialogue (Brennan 2015).

Brennan also emphasized that the government seems much more aware of the problems connected to such mega-projects, remarking that it is a step in the right direction: “knowing what some of the potential risks are and how it could hurt their credibility and the viability of the projects in themselves, was the first step. And that awareness wasn't

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<sup>46</sup> Please refer to Appendix 7 for further information

<sup>47</sup> This is a bit of a simplification, however unfortunately a more in-depth discussion cannot be afforded here on the topic right now. For more information on the subject please consult the Myanmar Peace Monitor's section on the KIO.

there to begin with. So, I think we're getting closer now" (Brennan 2015). My discussion with my contact at NVE<sup>48</sup> supported the sentiment that the government is indeed trying to change how they do things with regards to hydropower dams:

Under the old regime, dams have a bad tack record for sure. MOEP really wants to improve their reputation in hydropower, to improve all the processes related to hydropower development. They have a keen interest in doing so. They need to do so in order to attract private investors, in order to get the project to be accepted by the local villages and local government. So they see that they need better processes than they had before in order to implement their hydropower strategy (NVE 2015).

It was also stated that the current government is aiming to achieve and implement international best practice with regards to dam construction and that the local population, as one of the stakeholders involved in the projects, will be informed and consulted, with their opinions and inputs representing an important part of the process (NVE 2015). In this regard, it is also interesting to note that in its work with MOEP and other ministries, NVE has approached the KNU together with representatives from MOEP and the Norwegian embassy, in order to jointly discuss a potential dam site in Pegu Region<sup>49</sup>, something I believe is the first time to have happened. The meeting was arranged in order to set up "terms of reference for a pre-feasibility study regarding a potential hydropower project on the Bawgata River" (South 2014). Initially it had been proposed to build a large dam on the river, with the KNU rejecting the idea and insisting on the community being consulted at all stages of the project (South 2014). The representative of NVE noted that the meeting went very well. Afterwards there seemed to be a small hick-up with regards to ownership of the study<sup>50</sup> - an issue that seems to since have been resolved, with both MOEP and KNU agreeing to joint ownership of the study (NVE 2015), a positive sign indeed! As mentioned by the NVE representative, "there is good will from both parties to take up some practical work together, so I think it's a good project as such" (NVE 2015).

With such changes spelling hope for future hydropower projects, they will not however apply to the projects already signed by the previous military government, which is

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<sup>48</sup> Norges vassdrags- og energidirektorat/Norwegian Water Resources and Energy Directorate

<sup>49</sup> Lying to the North-West border of Karen State

<sup>50</sup> In order to implement a pre-feasibility study, NVE needs a client to work for. This is what ownership refers to here.

problematic. So far, there has been no consultation or participation process, or even information provided by the government and/or companies involved in the construction of the Hat Gyi dam; the EIA laws are in the works, but not in place yet; and most problematic of all, the area is still an active conflict zone. And the Hat Gyi dam is not the only one where a large hydropower project has led to an increase in clashes between Burmese Army troops and ethnic armed groups. Whilst there have been attempts to mitigate the situation through peace negotiations and the creation of codes of conduct, it still remains unclear who exactly controls and operates within contested areas (MPM 2013, 10). The KIO has clashed with government forces near Sang Gang Hydropower Dam Project on the Taping River (2011); the KNPP attempted the blow up a power grid before signing a ceasefire agreement with the government in 2012; the RCSS-SSA<sup>51</sup> clashed with the army near the projected Tasang Dam site despite the 2011 ceasefire agreement signed by both parties; and the SSPP-SSA<sup>52</sup> has clashed with government forces on multiple occasions in northern Shan state where the Shweli dams (as well as the controversial Shwe Gas pipeline) are located (MPM 2013, 5-7). These multiple examples are drawn up to demonstrate that we are not talking about a single incident or clashes being restricted to one specific dam site. Rather, this is an endemic issue that needs to be addressed by the Myanmar government and ethnic armed groups already within peace negotiations, given the tight correlation between economics, natural resources, (ethnic) politics and conflict in this case.

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<sup>51</sup> Restoration Council of Shan State/ Shan State Army (operating in Southern Shan State)

<sup>52</sup> Shan State Progress Party/ Shan State Army (Operating in Northern Shan State)

## 9 Conclusion

The purpose of this thesis was to examine how economic drivers within dam development, both domestic and international, and local grievances attached to their lack of access to economic benefits (among other things) contribute to conflict on the ground. In order to help demonstrate the intricacies involved in the subject matter, a description of the history of the country was provided in order to showcase the underlying causes and grievances already prevalent. Moreover, detailed descriptions of the various actors involved, ranging from the international sphere to the very local, were presented, as well as indicating their motives behind their actions. My aim has been to show the different and complex angles involved in the debate around the Hat Gyi dam and that implementing such large-scale development projects in such volatile regions where there is still on-going conflict and no proper legal framework in place, is dangerous and reckless. It also demonstrated the lack of attention given to the local population, who will suffer the consequences from the dam construction but have so far lacked proper information on the issue. My limited primary data confirmed what other studies have shown: the local population has received no information about the dam construction process by EGAT or the Myanmar government, leaving them not only excluded from the decision-making process, but feeling further marginalized and disengaged from the central government whom they mistrust. What is more, the data shows that the construction of the Hat Gyi dam without consultations and inclusion of the local ethnic minority groups, armed and unarmed, contributes to the militarisation of the area and undermines the peace process.

Rivers, floodplains and wetlands are vital for the protection of our ecosystems, providing flood protection, enhancement of water resources and carbon capture: “healthy rivers are critical for helping vulnerable communities adapt to a changing climate – protecting them now is a community’s health insurance policy for the future” (Yan and Pottinger 2013, 8). Stacked against this is the notion that “each and every society’s capability of development, or indeed its ability to survive, depends on continuing access to energy in appropriate forms and quantities and at acceptable levels of cost” (Cook quoted in Odell 1990, 79), which in the case of Myanmar will invariably entail electricity generation through hydropower. However this idea of energy security, whilst indeed important for any developmental aspects, has also served as an excuse by



governing elites – especially in authoritarian states – to pursue grand energy projects at the expense of marginalised populations (Simpson 2007, 539). Such projects, notes Simpson, are rarely vetted via environmental or social impact assessments in such regimes, or if they are implemented, then they tend to often serve as simply a “rubber-stamping exercise” with little, if any, input from the local population which will suffer the brunt of these projects (Simpson 2007, 539). Add to this the fact that in the case of Myanmar further complexities arise given the way business interests and development are entangled in the peace process, and we find ourselves with a powder keg ready to explode at any time. Some have commented that business interests are in fact taking precedence over politics with regards to peace negotiations, however, business and economic power in the form of business concessions, development and fair distribution of natural resources (all of which are demanded by ethnic armed groups) form an integral part of ethnic grievances and thus are tied to the political negotiations taking place (MPM 2013, 1). Thus, in the case of Myanmar, economics is both a “driver and a solution” to the ongoing conflict. The unfair distribution of natural resources and revenues extracted thereof, the negative impact development projects have had (and continue to do have) on local peoples, as well as the high level of poverty (itself related to the previous two points) have all contributed to the outbreak and continuation of violence (MPM 2013, 1).

Thus, this thesis aimed to shed some light on the cultural implications of big infrastructure projects in the country and the importance of big donors and enterprises investing in Myanmar to respect and research such cultural implications more through the lens of political ecology. In doing so, more emphasis has been placed on plurality of explanation rather than simply cause and effect, which will hopefully have resulted in a more multi-faceted analysis considering the “historical, political and economic contexts at different spatial and temporal scales” (Castree in Budds 2004, 324). What is more, many of the people I interviewed asked me to help them, to advocate for them once I am back home, to make sure people are aware of the fact that they do not want these dams to be built and that they are afraid for their livelihoods, their future and way of life. Whilst the main aim has been to provide neutral accounts of the situation in Myanmar and go into detail of the actors involved, I am also hoping to give those people more of a voice.

Aung Naing Oo likened the conflict between the various stakeholders in Karen State and the government to a “Tha-book-oo” which is the name of a local fruit. He went on to say that “it has a labyrinth of fabric inside so intricate that no one knows the beginning, the middle or the end” (Aung Naing Oo 2014). That is how I felt at the beginning of this journey, and to this day, the issues appear highly intertwined and complex. It is my hope that this thesis has laid the groundwork and helped untangle some of the complexities of the conflict in Karen State, the history and the implications of the Hat Gyi dam for conflict and people and explain why it is so important to take into consideration the history, culture and the many fears and divisions still prevalent when it comes to such large infrastructure projects. As Dr. Brennan said, “building the dams in volatile regions without having first done ceasefire agreements, without local support, community involvement, you really put the whole process, the whole development of Myanmar on its knees” (Brennan 2015). This is exactly where I see one of the biggest problems lying. What seems only all too certain is that proceeding with the planned dam projects without full consultation and consent of the local population only serves to exacerbate the tension, plunging both sides back into intense fighting and conflict (Mang and Yan 2013). I firmly agree with Buchanan et al. (2013, 10) that development projects should benefit local communities and allow them and their representatives to decide whether these projects go ahead and how they are managed. “Failure to do so will both undermine conflict resolution and national reconciliation and also create new ethnic grievances, thus contributing to Burma’s cycle of conflict”. Unfortunately, so far it seems that politics and economics (power) is causing hydropower to be developed that benefits the rich and disadvantages the poor.

Coupled to this is the current political and economic reform process initiated by the new government since 2011, which has already resulted in a stark increase in foreign direct investment (FDI). Its strategic geographic position between South and Southeast Asia and its huge growth (and export) potential thanks to its natural resources have not gone unnoticed, with China, Thailand, India as well as other nations already vying for contracts there (Kattelus, Rahaman, and Varis 2014, 85). Geopolitical aspects surrounding trans-boundary water management, corporate social responsibility of foreign and domestic enterprises and the upholding of human rights will undoubtedly come to the forefront of discussions more and more in the future. From the perspective of Myanmar’s government, natural resource management, and hydropower in particular,

represents a huge revenue potential, as well as cementing the country's geopolitical importance within South East Asia. By becoming the equivalent of Asia's "battery", Myanmar will be able to exert more power and dominance in the international sphere, among other motives.

Clearly then, natural resource extraction will play an important part in any future developments in Myanmar, making their appropriate management in transparent, accountable manners with rule of law and public participation all the more important. There are many incentives to including local population and local governance in the planning process of large development projects. And indeed, one of the main things people are asking for is to be more involved, to feel like the government cares about their opinion and their lives and to make sure their future is secure. As Sai Khur Hseng said, "if the government says they will suspend all dams on the river until we consult the people, that would be positive. Then we can debate more and give our reasons for opposing the dam and find alternative ways. But if they go ahead, there will be more conflict as things stand now" (Sai Khur Hseng 2014). Although the current government seems to be recognizing this, it still needs to act in a way to prevent such conflict from occurring rather than forging on with the dam plans as is. There are indeed promising developments happening in the case of hydropower development in Myanmar. But unfortunately, those developments will most likely not apply and not come fast enough for the Hat Gyi dam. Moreover, the companies operating in the region need to become more aware of the local situation and particularities at hand and apply more CSR. After the Myitsone incident in Kachin State, the Chinese companies re-thought their strategy there and realised that more compensation in social service building, such as schools and hospitals, was needed in order for the project to work and benefit the people as well. Yet this lesson, arguably too late in the case of Myitsone, does not seem to have been translated to the Hat Gyi (or other dams for that matter). Furthermore, local people need to be able to access information and have consultation opportunities with the companies involved before any construction begins. The majority of the people are still uninformed and do not know to what degree they will be impacted by the dam, or when it is slated for construction even. The villages on the Thai side of the river have more access to information and are more knowledgeable on the situation, but also lack possibilities to directly influence the project planning procedures. As Scudder writes, resettler participation in the project planning is vital and has a significant impact on the

outcome on the resettlement process (Scudder 2006, 68). He also mentions that negative outcomes are unnecessary since positive examples of resettlement and dam construction have occurred and have showcased what is needed in order for those impacted to become beneficiaries (Scudder 2006, 86). The area the Salween River traverses through has high biodiversity significance and is home to a large variety of ethnic groups whose culture and traditions are threatened if the process of dam and infrastructure development is not done in a correct manner. Moreover, the impact of such large development projects in an area of such cultural diversity, with some ethnic groups living along the river being the only ones left from their ethnic group, such as the Yin Ta Lai in Karenni State. This impact needs to in the very least be acknowledged and mitigated in order to help preserve these distinct cultures and their way of life. Myanmar is a melting pot of ethnic groups and cultures. So far, many internally have come to view that as a weakness. But it can be one of the country's biggest strengths, and by beginning to work together as partners, more understanding, acceptance and development can be fostered, with everyone profiting. If, however, dam builders and the government fail to acquire consent, such projects could plummet the region back into the shadow of a decades-old conflict (Mang and Yan 2013). Dams may not constitute the root of the problem, but they can definitely exacerbate the conflict and foster further animosity. In a country filled with such potential, vibrant people and fascinating cultures, that would be a true crime.

# Appendix 1 – Planned hydropower projects in Myanmar

Sr	Name	State/Division	Basin	Installed Capacity (MW)
1	Kyeeon Kyeewa	Magway	Lower Irrawaddy	74
2	Myithar	Magway	Chindwin	40
3	Upper Kengtaung	Shan	Salween	52.5
4	Bu-ywa Lower	Magway	Lower Irrawaddy	42
5	Upper Sedawgyi	Mandalay	Upper Irrawaddy	60
6	Myogyi	Shan	Upper Irrawaddy	24
7	Anyarpya	Tanintharyi	Tanintharyi	9.3
8	Yarzagyo	Sagaing	Chindwin	4
9	Hutgyi	Kayin	Salween	1360
10	Myitsone	Kachin	Upper Irrawaddy	4100
11	Tapein 1	Kachin	Upper Irrawaddy	240
12	Tapein 2	Kachin	Upper Irrawaddy	168
13	Shweli 2	Shan	Upper Irrawaddy	460
14	Shweli 3	Shan	Upper Irrawaddy	360
15	Upper Thanlwin	Shan	Salween	1400
16	Shwe Sar Yay	Sagaing	Chindwin	660
17	Tanintharyi	Tanintharyi	Tanintharyi	600
18	Baluchaung 3	Kayah	Salween	48
19	Yenan	Kachin	Upper Irrawaddy	1200
20	Khaung Lan Phu	Kachin	Upper Irrawaddy	2700
21	Phi Zaw	Kachin	Upper Irrawaddy	2000
22	Wu Sauk	Kachin	Upper Irrawaddy	1800
23	Chi Phway / Chibwe	Kachin	Upper Irrawaddy	2800
24	Laik Zar	Kachin	Upper Irrawaddy	1900
25	Sai Din	Rakhine	Rakhine	76.5
26	Bilin	Mon	Sittoung	280
27	Dayine Chaung	Kayin	Salween	25
28	Thakyet	Tanintharyi	Tanintharyi	20
29	Lay Myo (Laymro/Lemro)	Rakhine	Rakhine	500
30	Manipur	Sagaing	Chindwin	380
31	Upper Buywa	Magway	Lower Irrawaddy	150
32	Upper Yeywa	Mandalay	Upper Irrawaddy	140
33	Mawlaik	Sagaing	Chindwin	515
34	Weigyi	Kayin	Salween	4540
35	Dagwyi	Kayin	Salween	792
36	Ywathit	Shan	Salween	800
Total				30320.3

Figure 3 - Planned hydropower projects in Myanmar. Source: (Kattelus 2009, 156)

## Appendix 2 – Interview guide

- 1) Name
- 2) Age
- 3) Marital Status
- 4) Ethnicity/Religion
- 5) Would you like to tell me a bit about your family/living situation?
- 6) Could you tell me about what you do in your everyday life? What is your daily routine?
- 7) What is your main source of income?
- 8) Could you tell me a bit about your community and your village?
- 9) Has any of this changed in the last few years? If so, do you know why this might have happened?
- 10) What do you know about the possibility of dam construction close by?
- 11) What do you think/how do you feel about that?
- 12) How do you think the dam construction will change your life?
- 13) What information have you gotten on the dam and from whom?
- 14) Has anyone from the government come to speak to you about it?
- 15) How do you use the river? For what activities? How does it relate to your everyday life?
- 16) Who do you trust most to help and to support your community?
- 17) How do you see the future for you and your community? What are your hopes for it?

18) Could you tell me one thing you find very valuable, that you would like the next generation to inherit?

## Appendix 3 – Karen Song about the Salween

Song about the Salween River “The Salween” – Band name: Equal 49

*Verse 1:*

“We have to move away from the river. What can I do? The water comes to flood our village. Please, God, listen to our voice and help! This may be happening now, but we must fight it.

*Chorus:*

Government, you give away your country, you don’t respect human rights, SPDC (military government), you are violating human rights, you have no democracy, you don’t respect your country!

*Verse 2:*

Please God, listen to our prayers. If they build the dam, they will destroy everything, the livelihoods, animals.

*Chorus:*

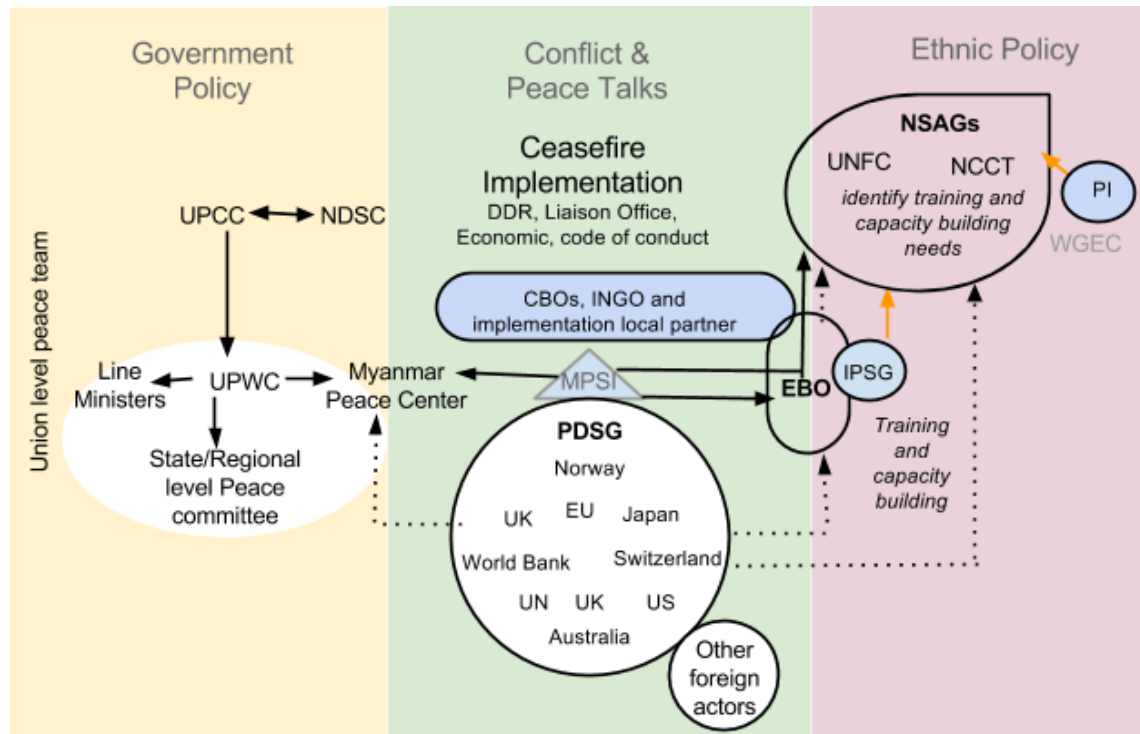
Government, you give away your country, you don’t respect human rights, SPDC (military government). You are violating human rights, you have no democracy, you don’t respect your country! You’re very greedy! Now you are holding all of our opportunities.

*Verse 3:*

The Salween is our life, the Salween flows all the time, it is like the sign of the Karen. The river is part of our ethnic culture. We are working to support the river. We all have to work together to stop the dam from being built.



## Appendix 4 – Overview of Myanmar’s Peace Process



Government	Armed Groups
<p>led by: <b>Union Level Peace Team:</b></p> <ol style="list-style-type: none"> <li>1. give up arms/transform into BGF → now allowing ethnic armed groups to keep their arms</li> <li>2. set up a political party</li> <li>3. contest in elections</li> </ol>	<p>Led by: <b>UNFC, United Nationalities Federal Council</b></p> <ol style="list-style-type: none"> <li>1. political talks (according to the 2008 federal constitution drawn by ethnic and democratic opposition groups)</li> <li>2. union accord - agreement on power sharing and resource sharing = amending the 2008 constitution</li> <li>3. approval from parliament</li> </ol>

### **Peacemaking bodies**

Central Committee Policy making Body

1. Chaired by President Thein Sein

11-members including:

1. Vice President U Nyan Tun (replaced U Tin Aung Myint Oo, Aug.16, 2012)
2. Vice President Dr. Sai Mauk Kham
3. Speaker of the Upper house U Shwe Mann
4. Speaker of the lower house U Khin Aung Myint
5. Commander-in-Chief of the Defense Services Vice Senior-General Min Aung Hlaing
6. Minister of Home Affairs Lieutenant-General Ko Ko
7. Defense Minister Lieutenant-General Wai Lwin (replaced General Hla Min)
8. Border Affairs Minister Lieutenant-General Thet Naing Win (replaced Lieutenant-General Thein Htay)
9. Attorney-General Dr. Tun Shin
10. Director of President's office U Min Zaw

Working Committee Implementing Body

Myanmar Peace Center Secretariat

### **Transformed Armed Groups**

DKBA BGF 1011 to 1022 Kayin State

### **UNFC members**

#### **Ceasefire 6 members:**

1. KNU, Karen National Union
2. KNPP, Karenni National Progress party
3. SSPP/SSA-N, Shan State Army-North
4. CNF, Chin National Front
5. NMSP, New Mon State Party
6. PNLO, PaO National Liberation Organization

Non-Ceasefire 5 members:

1. KIA, Kachin Independence Army
2. NUFA, National United Front of Arakan
3. WNO, Wa National Organization
4. LDU, Lahu Democratic Union
5. PSLF/TNLA, Palaung State Liberation Front/ Ta-ang National Liberation Army
6. \*KNO, Kachin National Organisation (merged with KIO)

### **Non-UNFC**

**following the UNFC's leadership**

<p>Democracy and Development Party (KSDDP): 2 elected MPs</p> <p>KDA PMF 3 to 7, runs businesses and carries out development projects</p> <p>KNG PMF</p> <p>KNU Peace Group 1 elected MP, USDP member</p> <p>KNU Peace Force BGF 1023 Kayin State Democracy and Development Party (KSDDP)</p> <p>KNDP, KNPDP, KNPLF, KNUSO BGF 1004 &amp; 1005, Business groups</p> <p>NDA-K BGF 1001, 1002, 1003, 1 elected MP.</p> <p>PNO Pa-O National Organization party: 8 elected MPs</p> <p>PSLF PMF Mann-pan &amp; Mann Ton, Ta-Aung (Palaung) National Party (TPNP): 2 elected MPs</p>	<p>ALP, Arakan Liberation Party, aka Rakhine State liberation Party (involved in WGEC)</p> <p>DKBA-5, Democratic Karen Buddhist Army- Brigade 5</p> <p>(follows KNU's political leadership)</p> <p>KPC, KNU/KNLA Peace Council (UNFC unofficial observer)</p> <p>KNLP, Kayan New Land Party (UNFC observer of the, under pressure from the govt to transform into a PMF (April 7, 2010) but continues to function as a ceasefire group)</p> <p><b><u>unofficially following UNFC principles and plan</u></b></p> <p>UWSA, United Wa State Army</p> <p>NDAA-Mongla National democratic Alliance army</p> <p>RCSS/SSA-S, Shan State Army-South</p> <p>AA, Arakan Army</p> <p>ABSDF, All Burma Student's Democratic Fron</p> <p>MTUF, Mergui-Tavoy United Front</p> <p>Others</p> <p>NSCN-K, National Socialist Council of Nagaland - Khaplang (primarily demanding economic and social development for their area)</p>
<p><b><u>International Actors</u></b></p> <p>MPSI, Myanmar Peace Support Initiative headed by Norway</p> <p>PSDG, Peace Support Donor Group</p> <p>IPSG, International Peace Support</p>	<p><b><u>CBOs and NGOs</u></b></p> <p><b><u>Monitoring</u></b></p> <p>e.g. Mon Regions Peace Monitoring Group, Shan Women Action Network, Karenni Civic Society Network</p>

Group

Nippon Foundation, Japan

**Others**

China, India, ASEAN, OIC, USA,  
Finland

**Policy and peace advocacy**

e.g. Women's League of Burma,  
White Holding Hands, Peace Network,  
Kachin Peace Network, Generation  
Wave

**Peace talk Facilitators**

Karen Peace Support Team Shalom  
Foundation

**Ceasefire implementation**

CIDKP, Committee for Internally  
Displaced Karen People

KORD, Karen Office for Relief and  
Development

SRDC, Shan Relief and Development  
Committee

Source: (MPM 2014b)

# **Appendix 5 – Myanmar’s Electrification**

## **Energy Demand**

Over 70% of Myanmar’s population resides in rural areas, 74% of which are said to be lacking access to energy in comparison to the average of 33% of people lacking access to energy in Yangon (ADB and Accenture 2013, 16). Even in Yangon, those living in the lower socioeconomic neighbourhoods may only receive as little as one hour of power a day during dry season (ADB and Accenture 2013, 18).

As of yet, industrial development in Myanmar has been relatively limited and thus its demand for energy has also remained considerably low. However, given that the government is aiming to increase industrial activity from 26% of GDP in 2010 to 32% by 2015 (ADB and Accenture 2013, 16), energy demands will also increase, putting more strain on the current electricity provision. Furthermore, with demand growing an estimated 15% annually, a massive expansion in power generating capacity will be necessary (Ferry 2014). Agriculture is Myanmar’s key industry, accounting for 36% of its GDP and could have a huge potential for expansion. Adequate energy supply services are pertinent for all the expansion of all of these sectors.

## **Rural Electricity Access**

The majority of Myanmar’s rural population has no access to the central grid, nor can they find reliable and affordable access to isolated mini-grids. The use of provisional energy sources such as small gensets, disposable batteries, diesel lanterns or candles, consumes a disproportional high share of people’s income and harms the environment (Bodenbender, Messinger, and Ritter 2012, 14). Moreover, kerosene is not available as a substitute for electric lighting in Myanmar. It used to be subsidized by the government, but this was reduced in the 1970s, until it was halted completely in the 1980s. Furthermore, the remaining expensive and low-quality alternatives do not meet the basic energy needs sufficiently. According to a report by MercyCorps on energy consumption in the Irrawaddy Delta, “Households can afford an average of 3.8 hours of light per night although they would like 5 hours on average”.

## Energy Supply

Myanmar's primary energy supply, as aforementioned, is mainly met through traditional biomass (75%), followed by gas (10%) and crude oil (6%) (ADB and Accenture 2013, 13). In fact, wood alone accounts for about 62% of all primary consumption needs, carrying with it dire environmental impacts, such as widespread deforestation. The main of this can be summed up as being "small-scale agriculture, commercial logging, and fuel wood production, while the underlying cause is widespread poverty" (Kyi et al. 2000, 81). With Kerosene being too costly for most rural households and the electricity grid not extending to the vast majority of the country, people have been forced to turn to firewood as their main source of energy (Kyi et al. 2000, 82). However, Myanmar does have other options to supply energy. As we have seen, renewable energy and energy efficiency are usually characterized as "win-win" options in Sustainable Energy Development, meeting the objectives both of environmental improvement and poverty alleviation (Cecelski 2000, 1). And Myanmar indeed exhibits a large potential for renewable energy. Wind, solar and biomass energy hold great potential, but hydropower has been the main focus for commercial exploitation so far (ADB and Accenture 2013, 13). In terms of installed capacity and produced electricity, hydropower represents the biggest source of electricity in Myanmar, followed by gas, coal, and diesel stations (Bodenbender, Messinger, and Ritter 2012, 10). However, much of this is seasonal in nature, resulting in limited supply throughout dry months of the year, leaving those connected to the grid requiring alternative sources in order to access light (Nicholson 2012, 2).

Add to this the fact that Myanmar has a very challenging topography and one of the lowest population densities in South East Asia, meaning that conventional grid-extension may not be the best financial and viable solution for rural areas (Bodenbender, Messinger, and Ritter 2012, 11), and we can see why the issue of electrification is so problematic.

The fact that the institutional set up concerning energy governance in Myanmar is extremely complicated only serves to add to the confusion and inconsistency of the energy sector so far. More than a dozen government agencies are involved in energy and electricity planning, disregarding the private and civil society actors involved that

only serve to further complicate and already confusing energy policy landscape (UNDP 2013, 19).

Even though Myanmar demonstrates significant internal energy access challenges, it has become major energy exporter for the region. This contradiction can help explain some of the challenges Myanmar faces concerning internal energy service provision. The previous military government prioritized oil and gas export rather than providing energy access for the population, leading to the huge current disparities (ADB and Accenture 2013, 19). However, there have been signs of change since 2005 when private enterprises were allowed to begin supplying electricity, and the government is currently in the process of updating the antiquated Electricity Law.

### **The government's current electrification plan**

The current government has recognized the country's dire need for energy and has made national electrification a top priority (Castalia 2014, 1). The Myanmar National Electrification Plan (NEP) has been drawn up after numerous consultations with international consultants and organisations such as the World Bank, and aims to achieve 100% electrification by 2030. Not all States will be covered by this plan immediately, in which case off-grid "pre-electrification" options are slated to provide services for the short-/medium-term (World Bank 2014, 25). The NEP estimates that approximately 2.5-3.0 GW of new generation capacity will be needed for modest, residential needs alone, not counting the commercial and industrial demands (World Bank 2014, 26). This represents over a doubling of the current capacity of 3,735 MW—2,780 MW (ADB 2015, 2). In order to achieve this level of electrification, the government will place a strong emphasis on hydropower generation.

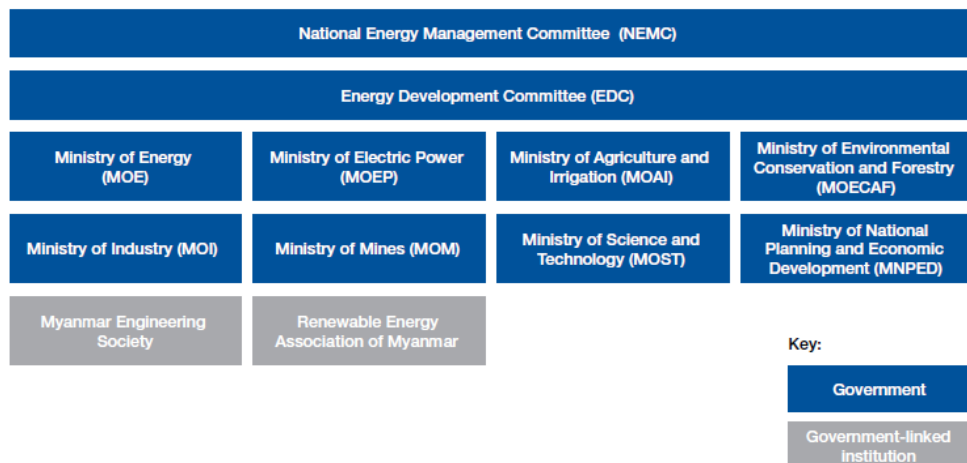


Figure 4 - Myanmar's wider energy-related government institutions. Source: (ADB and Accenture 2013, 13)

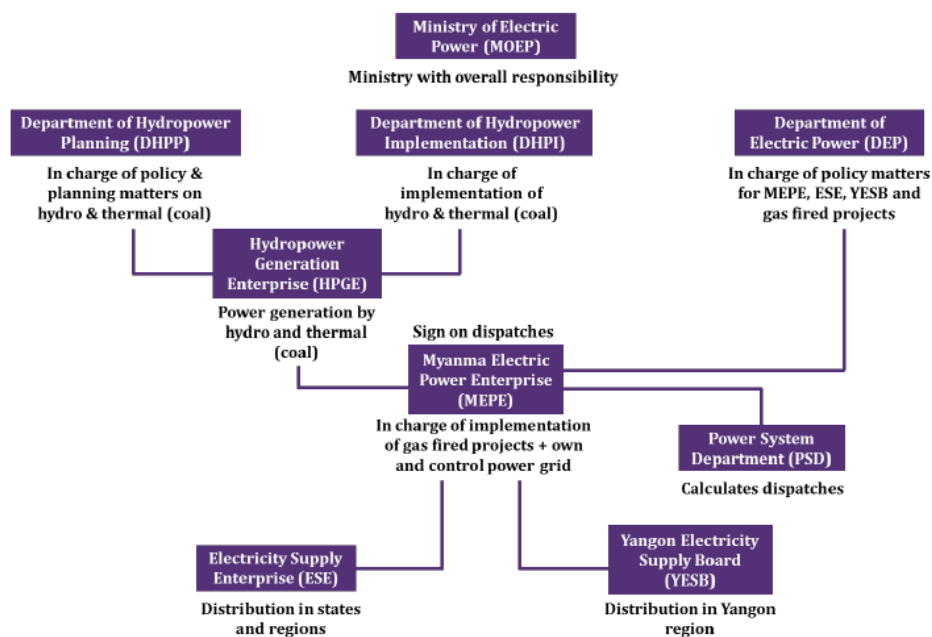
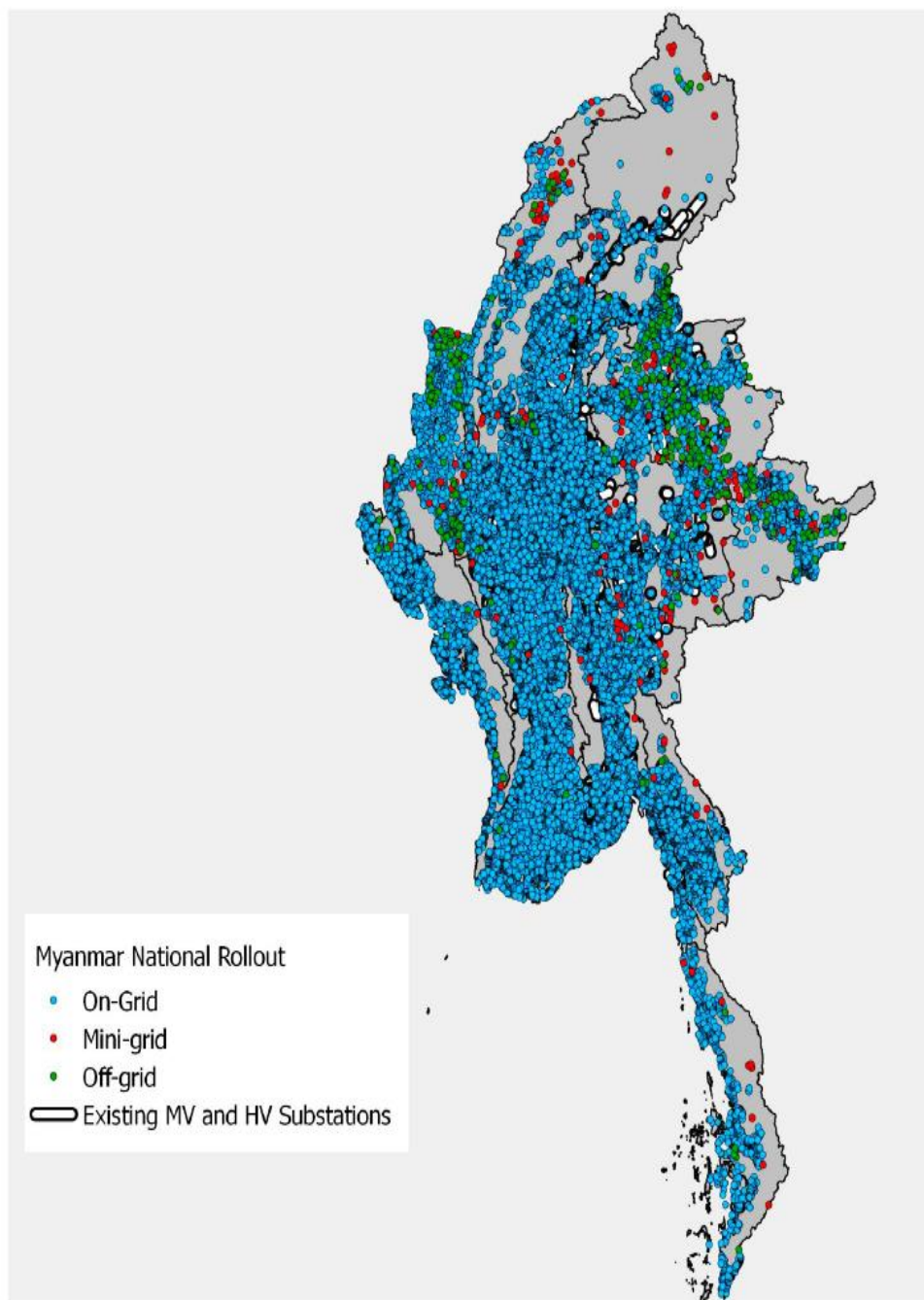


Figure 5 - Ministry of Electric Power Organizational Chart. Source: (Loi 2014, 22)





**Map 6 - Myanmar's National Roll-out Plan. Source:(Castalia 2014)**

# **Appendix 6 – Detailed description of the Salween Dams**

## **Wei Gyi Dam**

The Weigyi Dam is located in Papun District (Northern Karen State). EGAT signed a Memorandum of Understanding (MoU) with Myanmar in December 2005 for its development, with the majority of electricity generated once more going to Thailand. It is estimated that it will produce 4,540MW with a flood height of 220 meters above sea level (Salween Watch 2007, 3). Although it is located in Karen State, it is actually Karenni (Kayah) State that will be impacted most by the construction of the dam since the dam's reservoir will flood "many of the best low land forests and agriculture lands in the state" (BRN 2008c) in areas where illegal logging already threatens the forest areas in both Thailand and Myanmar (Salween Watch 2004, 18). It is estimated that it will displace/remove 30,000 people, among whom the Yin Ta Lai, an ethnic minority group (and a sub-group of the Karenni ethnic group) dependent on the Salween and who are "facing extinction" if the dam is built (KDRG 2008).

## **Tasang Dam**

The Tasang Dam is the biggest of the dams proposed for the Salween River. Located in Southern Shan State, it is the most ambitious project on the Salween, given that it slated to become the highest dam in Southeast Asia. With its 228 m height, it is planned that it will even exceed the Three Gorges Dam in China (Brennan and Döring 2014, 3). The flood area is predicted to cover at least 640 square km and produce 7,100MW of energy – energy that is also set to be integrated in the Asian Development Bank's Greater Mekong Sub-region Power Grid (ERI 2008, 5). The ADB, arguably a major backer of dam construction in the past, also conducted its own study of the Tasang Dam in 2002 as part of a plan for a regional power grid, but decided not to pursue it further citing "serious socio-environmental concerns" (Gray 2006).

Deals went ahead anyway and were initially signed between the government of Myanmar and Thailand's MDX Group, together with China Gezhouba Group Co. (BRN 2008b). According to the Burma Rivers Network, the local people living in the dam's

prospected floodplain have been informed about the dam project, albeit with the omission of the possible negative consequences it may harbour, and were not given any opportunity to voice their concerns (BRN 2008b). One of the impacts of this project has been mass relocation, something that already begun before official MoUs were signed in 2006-7 (Gray 2006). Moreover, the dam lies in the middle of an active conflict zone in Shan State, with clashes between the SSA-S and the Burmese Army being reported for years (Michaels 2013).

The ground-breaking ceremony was in March 2007, but construction has been stalled, and there has been little activity at the dam site as of 2008 (BRN 2008b). Authorities began “building access roads to this site as early as 1996, and more than 300,000 people in the area have been forcibly moved over the years”, human rights and minority groups claim (Gray 2015).

### **Dagwin Dam**

The Dagwin Dam site lies on the border between Thailand’s Mae Hong Son Province and Myanmar’s Karen State, and will function as a pumped storage facility for the upriver Weigyi Dam (BRN 2008a). The Dagwin has been in planning since the early 1980s, and in July 1996 Thailand signed an MOU with the government of Myanmar for the purchase of electricity stemming from it (BRN 2008a). A power purchase agreement however has yet to be signed. Its projected capacity ranges from 500-900MW, but would mainly serve to trap and regulate large amounts of water release by the Wei Gyi dam during peak hours (Salween Watch 2007, 3). According to civil society organisations, the Burmese military has been launching offensives in order to clear the site since the early 1990s. Thus, they note that before the offensives, the zone around the proposed dam site was a Karen liberated area with over 100,000 people living there. More than half of these people are said to have fled the area, with many ending up in refugee camps in Thailand (BRN 2008a). It should also be noted that both the Wei Gyi and Dagwin dam sites are located in areas adjacent to national and wildlife parks.

### **Kunlong Dam**

Kunlong Dam, located in Northern Shan State, will have an installed capacity of 1400 MW, of which 90% will be sold to China through a connection to the China Southern

Power Grid (Salween Watch 2013). An Environmental Impact Assessment (EIA) has been conducted, but no results have been made public, whilst construction is said to have already started in secrecy (Salween Watch 2013). Deputy Minister of Electrical Power Maw Thar Htwe told Parliament on Wednesday June 18 2014, that the Kunlong dam will indeed be constructed saying that “joint venture agreements with foreign investors have been signed, and the Kunlong projects are being implemented” (Snaing and Kha 2014).

In 2010, Chinese energy firm Hanergy signed an agreement with the then-military government and joint venture partner Asia World, a Burmese conglomerate owned by Steven Law, who has been sanctioned by the USA and who is the son of the late drug lord Lo Hsing Han, to implement the project (Snaing and Kha 2014). This has been met with criticism from civil society groups, who voice concern over the fact that Asia World Company, “notorious for poor construction standards, has been contracted to start building the Kunlong dam” (Snaing and Kha 2014).

Moreover, the dam is located within an active civil war zone fought between the Kokang resistance army and the Burmese army. Fighting between the two factions has led to at least 30,000 people fleeing into China, and has flared up again since February of this year (and is still in progress). The KIA and Palaung and Wa armies also operate close by, all of which are still openly in conflict with the Burmese Army, resulting in a very volatile situation, ready to explode at any time.

## **Nong Pha Dam**

The Nong Pha dam site lies within Lashio township of Shan State on the mainstream Salween river. Very little information is available about this project, even though a MoU was signed between Myanmar and China in 2010 (Salween Watch 2013). Access to the dam site is very difficult. The dam is planned in United Wa State Army (UWSA) and Shan resistance forces territory. Whilst ceasefires with these groups are in place, fears of a large-scale military offensive in the area still prevail. Moreover, the UWSA has always been one of the largest ethnic armed groups operating in the country, making this a dangerous situation. 90% of the power generated is to be sold to China (BRN 2014), whereas Myanmar will receive 15% free share. According to Burma Rivers

Watch, the project (in conjunction with Man Taung Dam) will generate millions for Myanmar (BRN 2014).

### **Ywathit Dam**

Ywathit Dam will be located in Karenni (Kayah) State, north of the confluence of the Pai and Salween Rivers. A MoU was signed in 2010 between China's state-owned Datang Corporation and Myanmar's regime (in conjunction with two other dams that are to be built in Karenni State) (BRN 2011). The dam's installed capacity is said to lie at 600MW, but the NGO International Rivers reports that the company's website states it will produce up to 4500MW (Salween Watch 2013). This dam site is also located within a conflict zone, and in December 2010 there were reports that a convoy of Burman army officers escorting engineers to the dam site was attacked and three people killed (International Rivers 2011). Local population has yet to be informed about the dam projects and no one is permitted near the dam site (BRN 2011). Local people from the area around the Ywathit project site have been fleeing from the conflict for more than a decade already and the majority are now refugees on the Thai side of the river (Salween Watch 2013).

## Appendix 7 – New laws and international standards impacting hydropower development in Myanmar

New laws put in place	What do the new laws entail?	How do they impact the issue of dam construction?	Year
<b>The Foreign Investment Law (FIL)</b>	The Foreign Investment Law (FIL) includes measures to regulate foreign investment to the advantage of domestic companies (Buchanan, Kramer, and Woods 2013, 29).	Most significantly for the question of hydropower, the law determines a restriction across all sectors if “it is detrimental to traditional ethnic cultures and customs or is damaging to public health, natural resources, the environment or biodiversity” (Buchanan, Kramer, and Woods 2013, 29). It also specifies major development projects that require the implementation of EIAs, as well as basic pollution controls be instituted by investors.	2012
<b>Environmental Conservation Law (ECL)</b>	The Environmental Conservation Law requires the Ministry of Environmental Conservation and Forestry (MOECF) to put in place a comprehensive waste and pollutant monitoring scheme.	Projects from international investors have to be approved by the Myanmar Investment Commission (MIC) who still has the ultimate decision-making power in this regard (NCEA 2015). Given that key decision makers within MIC are still senior government officials, issues of corruption and transparency could potentially be a problem.	2012
<b>Environmental Impact Assessments (EIAs)</b>	Myanmar’s MOECF has formulated a set of draft rules that, however, have yet to be implemented. In their draft, the MOECF defines an EIA as <i>a systematic assessment of a proposed activity or project that is prepared to aid in determining whether such activity or project has the potential significantly</i>	The draft regulations for the EIA procedures specifically state that public participation activities during the Scoping stage are a requirement, as well as public participation during the data collection, drafting of the report, and review stage (NCEA 2015). No detailed EIA regulations have been issued yet, but a formal approval of the draft regulations is expected for 2015.	2015 (expected)

	<i>to affect the environment, humans and other living things, including socio-economic impacts, and in deciding whether such activity or project should be allowed or not</i> (MOECAP 2013, 3).		
<b>The new Electricity Law</b>	Put in place to replace the old Electricity Law of 1984 which did not include a legal framework for private sector participation in power projects (Baksheev and Finch 2015). The new law establishes a Electricity Regulatory Commission (ERC) to supervise the monopolistic electric power entities (Baksheev and Finch 2015).	Whilst it gives MOEP and region and state governments more leeway in making decisions as to who is allowed to engage in electricity related works within their domain, the FIL (see above) still states that large power projects need to be approved by the government. Moreover, hydro and coal power plants must be “joint ventures with the government” (Baksheev and Finch 2015). This could mean better oversight of human rights issues if the government takes its new commitments seriously and implements initiatives to fight corruption and inform and consult with local populations impacted by the projects.	2014
<b>Land Reform</b>	The new government, recognizing the multiple problems with concerning land rights in the country has passed new laws to help regulate land tenure. Moreover, the Lower House of Parliament has created the Land Investigation Commission to investigate land disputes in cases of confiscated land.	In general terms, Myanmar’s domestic laws have allowed the government “wide authority to expropriate land” (KHRG 2013, 21). One of the new laws passed has been the “Vacant Fallow and Virgin Lands Management Law” which allows the government to reallocate ‘wasteland’ to private companies. However, not all land classified as ‘wasteland’ by the government is actually uninhabited, but part of rotational cropping – something not taken into consideration by the law (KHRG 2013, 21/Transnational Institute 2013, 2). New laws still fail to take into account local customs and traditional land tenure systems	2012

		(KHRG 2013, 18). Moreover, conflict-affected areas might not be included in the national cadastre or may be classified as vacant land.	
<b>Special Economic Zones (SEZs)</b>	Enacted in order to develop export oriented industries in Myanmar (KPMG 2014). It offers investors longer leasing concessions (up to 75 years) and provides various other benefits to investors, such as protection against nationalisation. SEZs offer tax exemptions to different sectors. In Myanmar, there are currently three such SEZs, with the country setting up seven more local industrial zones, among which Hpa'an and Myawaddy in Karen State.	The impact of the SEZs is that in order to build up industries, electricity will be vital. Where will the electricity for these Zones come from? More likely than not, large hydropower dams.	2014
<b>The Myanmar Extractive Industries Transparency Initiative (MEITI)</b>	The initiative is “an international standard for openness around the management of revenues from natural resources. Governments disclose how much they receive from extractive companies operating in their country and these companies disclose how much they pay” (EITI 2014).	One of the steps in this process is the creation of a multi-stakeholder group which incorporates members of civil society organizations, companies and government representatives in order to oversee the EITI implementation (Mann 2013). MEITI will hopefully encourage more transparency in business deals and within the extractive industry. Myanmar hopes to become a compliant country by 2016 or 2017.	Myanmar applied for it in 2012

Source: Author



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